

LEATH & ROSS'S

WELL KNOWN BRAND OF

HOMŒOPATHIC MEDICINES

Command the largest sale and will be found a safe and profitable investment.

SPECIAL TRADE NOTICE.

OUR

£5

Handsome and Attractive

CASE

(OPEN BACK OR FRONT)

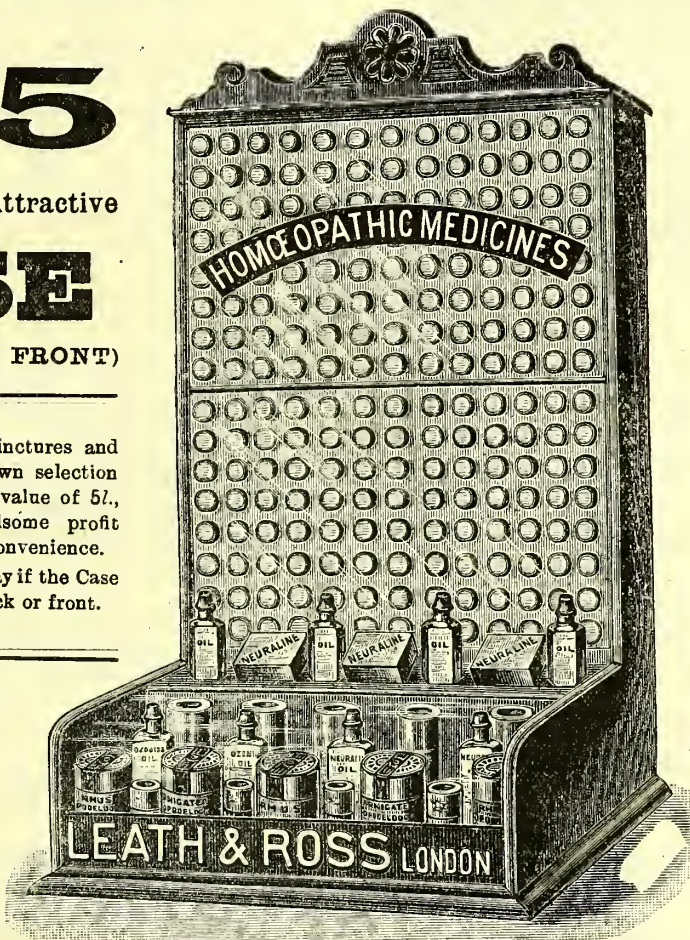
Fitted complete with Tinctures and Pilules (to customers' own selection if required) to the Net value of 5l., thus yielding a handsome profit without trouble or inconvenience.

When ordering, kindly say if the Case is required to open back or front.

NO CHARGE

Whatever for

THE CASE



OUR

TINGTURES, PILULES,

AND

CAMPHOR

Are in great demand everywhere, and can be had in any strength from the φ (mother), 1x:1, and 1 upwards.

1/-

 Size

3/6

 per doz. Cash

9d. size, 2/9,,

6d. size, 2/-,,

DIMENSIONS—

Length, 19½ in.

Width (from back to front), 11½ in.

Height, 32½ in.

Other Agents' Cases at £3 3s., £4 4s., £6 6s., £10 10s., and £21. All the Cases can be had in Mahogany, Walnut, or other Fancy Wood to match Shop Fittings, and fitted with 6d. and 1s. stock, 9d. and 1s. stock, or all 1s. stock, as preferred.

THE ABOVE VERY HANDSOME AND IMPROVED BENT-GLASS

CHEMIST'S COUNTER SHOW-CASE

Stands unrivalled for style, convenience, and beauty; occupies but a small space on the counter; it is made to open back or front, to suit the convenience of the purchaser and the position it is intended to occupy, and is a splendid advertisement.

LEATH & ROSS, Wholesale and Export Homœopathic Chemists,

9 VERE ST., OXFORD ST., W. (WHOLESALE DEPARTMENT) } **LONDON.**
AND 5 ST. PAUL'S CHURCHYARD, E.C.

DR WILLIAMS' PINK PILLS FOR PALE PEOPLE
MEDICINE CO'S

GREAT
Blood Builder & Nerve Tonic.

Cures Anæmia, all Nervous Diseases, Locomotor Ataxy, Paralysis, Rheumatism, Sciatica, Headache, all Female Weaknesses, Suppressions of the Periods, Pale and Sallow Complexions, all Diseases arising from Mental Worry, Over-work, Excess, Early Decay, &c. See inside wrapper.

For Directions, read circular around the Box.
PRICE 2s. 9d.; SIX BOXES FOR 13s. 9d.

Mr. Dr. Williams Medicine Co.
Brockville, Ont., Canada; Schenectady,
New York, U.S.A.; and
46, HOLBORN VIADUCT, LONDON, E.C.

Manufactured in the United States.

Telegraphic and Cable Address, "Adriatic London."

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LONDON, E.C.

To Retail Chemists

United Kingdom & Abroad.

Gentlemen:-

In consequence of the large amount of advertising which we are doing in local newspapers of the United Kingdom, we are in receipt of a large number of retail orders daily from private persons.

We are anxious that all such demands should be supplied by the trade alone.

But until we know that Dr. Williams' Pink Pills are in the stock of Chemists throughout the country it would be imprudent to decline executing retail orders. We therefore appeal to you to communicate with us in order that we may have your co-operation in diverting this class of trade into your hands, and with this object we shall be pleased to furnish any Chemist with a package of a

thousand copies of a pamphlet now in the press; a specimen from the American Edition of which will be sent free of charge on request. We ask you to stock Dr. Williams' Pink Pills, in which there is not the slightest risk, as we have contracted for a large amount of space and are daily extending our advertising, which has already placed our goods at the head of the market in America, where Dr. Williams' Pink Pills have a sale exceeding that of any other proprietary medicine.

The sale in America may be gauged by the telegraphic order of which a fac-simile is appended, & which is a sample of the kind of demand there experienced.

We are desirous of treating the trade with every courtesy & consideration: we ask the co-operation of the trade to enable us to place the profitable business of retail supply in the hands of the trade.

Dr. Williams' Pills are stocked by the Wholesale houses & orders may be therefore placed through the ordinary channels.

Very truly yours

The Dr. Williams' Medicine Co.



TELEGRAM

This Company TRANSMITS and DELIVERS messages subject to the conditions printed on the back of this card.
ALBERT B. CHANDLER, President and General Manager
JOHN O. STEVENS, Secretary

NUMBER 4 SENT BY 13 RECEIVED BY
Dated Detroit Mich Received Dec 1 1153 A.
Dr. Williams' Med. Co.

Ship immediately fifty Gross
Williams Pink Pills. Demand is
Enormous

Williams Davis, Brooks & Co.

SPECIAL!!

"VINOLIA" EASTER OFFER

EXTRA 5 OR $7\frac{1}{2}$ PER CENT. DISCOUNT.

A nett profit of $57\frac{1}{3}$ per cent. on cost prices.

We will execute an order during the next five days for "Vinolia" Soap and any of the other Preparations manufactured by us amounting in value to not less than £2 on our very best wholesale terms, and allow an extra 5 per cent. besides. On orders amounting to not less than £5, we will allow our very wholesale terms and $7\frac{1}{2}$ per cent. besides. Terms CASH.

On £2 orders cases will be sent free, and carriage will be paid but to those only who have signed our cutting agreement.

No orders amounting to less than £2 nor more than £25 will be executed on these terms.

These terms will nett a profit of $57\frac{1}{3}$ per cent. on cost prices, and in the case of the Perfumes much more. Considering the unprecedented demand for "Vinolia" Preparations from year's end to year's end, would it not be more to your advantage to push them than to interest yourself in any other Preparations in the market? There is a good living profit in them. Why pay rent, work for others, lock up capital, and do business for fun? "Vinolia" preparations are half sold when shown on the counter. The demand is large, profits good, and trade protected. Note this one fact: when ready sales, large turnover and substantial profits are taken into account, there is no soap in the market to compare with "Vinola." Price list on opposite page. Don't dabble in imitations.

BLONDEAU et CIE.,

Ryland Road, London, N.W.

CABLE AND TELEGRAPHIC ADDRESSES:—

"BLONDEAU, LONDON."
"BLONDEAU, NEW YORK."

TELEPHONE No. 7659.

AMERICAN ADDRESS:—
73-77 WATTS STREET,
NEW YORK, U.S.A.**"VINOLIA" CASH PRICE LIST.****BLONDEAU et CIE., RYLAND ROAD, LONDON, N.W.**

Our Terms are Cash, i.e., Cash with order, or on receipt of goods. Payment must be made within 10 days from the date of invoice to secure the Cash Discount.

							Retail, EACH.	Prices PER DOZ.
							s. d.	s. d.
VINOLIA, small stamped	...	...	...	...	...	...	1 9	16 3
" unstamped (Vinolia unstamped is for Compounding Prescriptions only.)	...	...	...	...	...	...	1 6	13 9
" medium stamped	...	...	...	...	...	...	3 6	33 4
" " unstamped	...	...	...	...	...	...	3 0	27 4
" large stamped	...	...	...	...	...	...	6 0	57 8
" " unstamped	...	...	...	...	...	...	5 0	45 8
VINOLIA POMADE	...	...	...	...	...	...	5 6	50 4
LAIT VINOLIA	...	...	...	...	...	...	7 6	68 6
VINOLIA POWDER, small...	(Vinolia Powder is prepared in white, pink, and cream tints.)			...	...	...	1 9	16 0
" " medium				...	...	...	3 6	32 0
" " large...				...	...	...	6 0	54 9
VINOLIA DENTIFRICE (English)	...	...	...	...	...	...	2 6	22 10
" " (American)	...	...	...	...	...	...	1 6	13 9
" " in metal boxes	...	...	...	...	...	...	0 6	4 7
" " " " " " " " " " " "	...	...	...	...	...	...	1 0	9 2
VINOLIA SOAP (Premier, for the "Million"), per box of 3 Tablets	...	...	...	...	...	...	1 0	9 2
" " " " " " " " " " " "	...	...	...	...	...	...	4 0	36 7
" " " " " " " " " " " "	...	...	...	...	...	...	12 0	110 0
Each tablet enveloped in wrapper of artistic design.								
" " (Floral), per box of 3 Tablets	...	...	...	...	...	...	1 6	13 9
" " " " " " " " " " " "	...	...	...	...	...	...	0 6	4 7
" " (Balsamic, Medical), per box of 3 Tablets	...	...	...	...	...	...	2 0	18 4
" " (Otto of Rose, Toilet), " " " " " "	...	...	...	...	...	...	2 6	22 10
" " (Vestal), per box of 3 Tablets	...	...	...	...	...	...	7 6	68 6
VINOLIA SHAVING SOAP (Toilet), Sticks in silver-metal cases, small	...	...	...	...	...	...	1 0	9 2
" " " " " " " " " " " "	...	...	...	...	...	...	1 6	13 9
" " " " " " " " " " " "	...	...	...	...	...	...	2 6	22 10
" " " " " " " " " " " "	...	...	...	...	...	...	2 0	18 4
" " " " " " " " " " " "	...	...	...	...	...	...	2 6	22 10
" " " " " " " " " " " "	...	...	...	...	...	...	4 6	41 6
VINOLIA SHAVING FOAM (Toilet), in collapsible tubes	...	...	...	...	...	...	1 0	9 2
" " " " " " " " " " " "	...	...	...	...	...	...	1 6	13 9
" " " " " " " " " " " "	...	...	...	...	...	...	2 6	22 10
"LYPSYL" (a Coraline Emollient for the lips)	...	...	...	...	...	...	1 0	9 2
" " " " " " " " " " " "	...	...	...	...	...	...	0 6	4 7
" " " " " " " " " " " "	...	...	...	...	...	...	1 0	9 2
Lypsyl is supplied in two tints—Rose-Red and White.								
PERFUMES—Jequilla, Marequil, Vinolia Bouquet...	...	...	...	...	...	...	1 9	14 0
" " " " " " " " " " " "	...	...	...	...	...	...	3 0	24 0

MINIATURE SAMPLES.

VINOLIA SOAP (Otto of Rose, Toilet)	...	...	...	...	...	...	0 11½	1 0
" " (Balsamic, Medical)	...	...	...	...	...	...	0 11½	1 0
" " (Premier)	...	...	...	...	...	...	0 2 (per gross)	18 4
VINOLIA POWDER	...	...	...	...	...	...	0 3	2 0

NOTE.—These miniature samples can be obtained on artistic cards, the cards only being supplied free of charge, the whole forming a most attractive and profitable addition to the Chemists' counter.

Orders under £2 net, and Cash with Order. £2 to £5 Order—special Cash Discount of 5 per cent. off above prices. £5 Order and upwards, Cash Discount of 10 per cent. off above prices.

Carriage paid on orders amounting to £5 and upwards to customers who have signed or who sign our cutting agreement. THESE TERMS ARE NOT AVAILABLE TO THOSE WHO SELL BELOW OUR STIPULATED MINIMUM CUTTING AGREEMENT.

"Vinolia" is put up in Special Boxes for Hot Countries.

SPECIAL!!

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Our Terms are Cash, i.e., Cash with order, or on receipt of goods. Payment must be made within 10 days from the date of invoice to secure the Cash Discount.

							Metallic. EACH.		Prices PER DOZ.	
							s.	d.	s.	d.
VINOLIA, small stamped	...	...	...	...	...	...	1	9	16	3
" unstamped (Vinolia unstamped is for Compounding)	...	...	...	...	...	...	1	6	13	9
Prescriptions only.										
" medium stamped	...	...	...	...	...	...	3	6	33	4
" " unstamped	...	...	...	...	...	...	3	0	27	4
" large stamped	...	...	...	...	...	...	6	0	57	8
" " unstamped	...	...	...	...	...	...	5	0	45	8
VINOLIA POMADE	...	...	...	...	...	...	5	6	50	4
LAIT VINOLIA	...	...	...	...	...	...	7	6	68	6
VINOLIA POWDER, small...	Vinolia Powder is prepared in white, pink, and cream tints.			...	...	...	1	9	16	0
" " medium				...	...	...	3	6	32	0
" " large...				...	...	...	6	0	54	9
VINOLIA DENTIFRICE (English)	...	...	...	...	...	...	2	6	22	10
" " (American)	...	...	...	...	...	...	1	6	13	9
" " in metal boxes	...	...	...	...	...	...	0	6	4	7
" " " " " " " "	...	...	...	...	...	...	1	0	9	2
VINOLIA SOAP (Premier, for the "Million"), per box of 3 Tablets	...	...	...	...	...	...	1	0	9	2
" " " " " " " "	...	...	...	...	...	...	4	0	36	7
" " " " " " " "	...	...	...	...	...	...	12	0	110	0
Each tablet enveloped in wrapper of artistic design.										
" " (Floral), per box of 3 Tablets	...	...	...	...	...	...	1	6	13	9
" " " " " " " "	...	...	...	...	...	...	0	6	4	7
" " " " " " " "	...	...	...	...	...	...	2	0	18	4
" " (Balsamic, Medical), per box of 3 Tablets	...	...	...	...	...	...	2	6	22	10
" " (Otto of Rose, Toilet), " " " "	...	...	...	...	...	...	7	6	68	6
" " (Vestal), per box of 3 Tablets	...	...	...	...	...	...	1	0	9	2
VINOLIA SHAVING SOAP (Toilet), Sticks	...	...	...	...	...	...	1	6	13	9
" " " " " " " "	...	...	...	...	...	...	2	6	22	10
" " " " " " " "	...	...	...	...	...	...	2	0	18	4
" " " " " " " "	...	...	...	...	...	...	2	6	22	10
" " " " " " " "	...	...	...	...	...	...	4	6	41	6
VINOLIA SHAVING FOAM (Toilet), in collapsible tubes	...	...	...	...	...	...	1	0	9	2
" " " " " " " "	...	...	...	...	...	...	1	6	13	9
" " " " " " " "	...	...	...	...	...	...	2	6	22	10
"LYPSYL" (a Coraline Emollient for the lips)	...	...	...	...	...	...	1	0	9	2
" " " " " " " "	...	...	...	...	...	...	0	6	4	7
" " " " " " " "	...	...	...	...	...	...	1	0	9	2
Lipsyl is supplied in two tints—Rose-Red and White.										
PERFUMES—Jequilla, Marequil, Vinolia Bouquet...	...	...	...	...	...	...	1	9	14	0
" " " " " " " "	...	...	...	...	...	...	3	0	24	0

MINIATURE SAMPLES.

VINOLIA SOAP (Otto of Rose, Toilet)	...	...	...	...	...	0	11	1	0
" " (Balsamic, Medical)	...	...	...	...	...	0	11	1	0
" " (Premier)	...	...	...	...	...	0	2	(per gross)	18 4
VINOLIA POWDER	...	...	...	...	...	0	3	2	0

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LONDON HOMOEOPATHIC HOSPITAL AND MEDICAL SCHOOL, GREAT ORMOND STREET, BLOOMSBURY, W.C.

President—THE LORD EBBURY.

Contains 90 Beds, and being entirely supported by Voluntary Contributions, Donations and Annual Subscriptions are earnestly solicited. The Hospital is always open to the inspection of visitors, and Clinical Instruction is given in the Ward and Out-patient Department to Medical Students and Practitioners. It possesses a valuable Library of Homoeopathic Publications, which Medical Men are invited to study. They are also invited to visit the Dispensary. The In-patients number over 700 annually; the Out-patients nearly 9,000 annually. The number of Patients treated since the inauguration in 1849 exceeds 215,000. It has a staff of 42 Nurses for Ward Nursing and Nursing Invalids at their residences.

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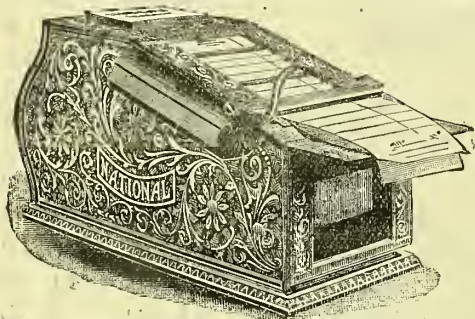
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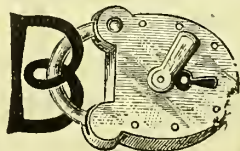
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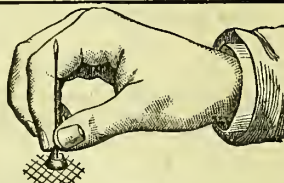
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SOLE AGENTS FOR

DR. WARLOMONT'S CALF VACCINE

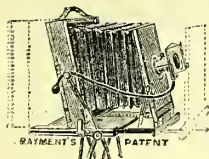
Tubes, 2s. each; Half Tubes, 1s. each. Formed in vials, 6s. HUMAN VACCINE, from healthy children only, microscopically examined and source quoted. Tubes two-thirds full, 1s. 8d. each; Tubes one-third full, 1s. 4d. each; Tubes two-thirds full (same as those mentioned above, but without source), in quantities for export, 2s. per 100 Tubes. Pin-points uncharged, 1s. per dozen. Vaccine Ejectors, 1s. 3d. each, including postage. F.O.O.s (including postage, and crossed London and Westminster Bank) with orders, payable to EDWARD DARKE, Secretary.

Office hours, 10 to 4. Saturdays 10 to 2.

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2 each, 6d., 1/-, and 1/6 on Card, Fig. 282. Per Card, 4/-

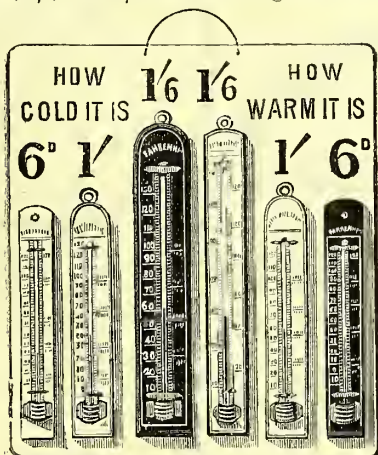


FIG. 282.

Splendid 6d. line: viz., 1 doz. 7 inch assorted colour Thermometers, Yellow, White, Black, and Brown, with enamelled tubes, on Gold Blocked Show Card to hang up. Per Card, 4/-

Wood Bath Thermometers, Small, 7/-; Large, 10/- per doz. Clinical Thermometers, from 24/- per doz.

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1 and 3 King Edward Street, Newgate Street, LONDON, E.C.
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PERFECTION EYE PRESERVERS & READING SHADES
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Court Journal says of them—"They are a perfect gem of beauty, lightness, and utility."

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Flesh Coloured.

Stop out the Light and Cold without Touching the Eye.

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See pp. 85-88, Winter Issue; also Diary, 1893
pp. 437-40.



**STRENGTH,
RAPIDITY,
AND
ACCURACY.**

All other Thermometers have a contraction in the stem an inch above the bulb, and a chamber within which retains a part of the mercury. This is a defect, as it is a difficult matter to heat the mercury properly in this chamber, it being so far away from the bulb and mouth.

The "NON PLUS ULTRA" Thermometer has no chamber, and the constriction is right on top of the bulb itself.

Result—a truer temperature is taken, and in half the time; the scale is much more open

and easy to read, as the divisions and figures are so much nearer the bulb.

It has greater strength, and the price is no higher!!!

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See Press Opinions

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LATEST PATENT**

The Superintendent of the Royal Kew Observatory says:—

" Their manufacture is a piece of undoubtedly high-class glass-blowing, and I also think that the removal of the contraction of the glass stem, usually placed at about half-an-inch from the bulb, will tend greatly toward extending the average life of a thermometer by increasing its strength, independently of the fact that, with the diminished bulb, much less time is required now to register a patient's temperature, and so you will be conferring a very large benefit on the medical profession by its introduction to the world."

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**CLINICAL
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EVERY THERMOMETER OF THIS MAKE IS GUARANTEED TO REGISTER THE TEMPERATURE IN LESS THAN TWO MINUTES.
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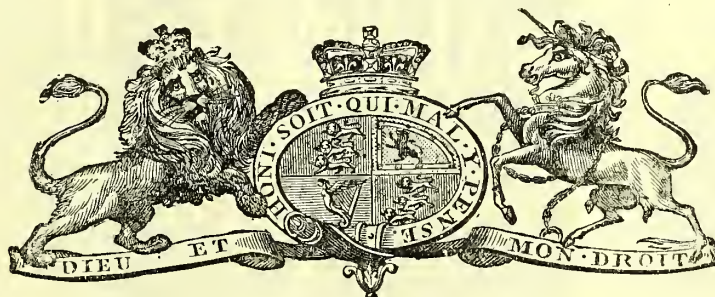
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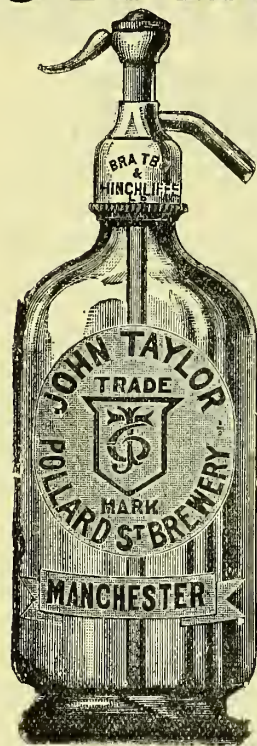
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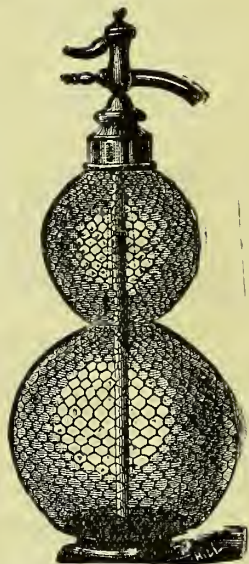
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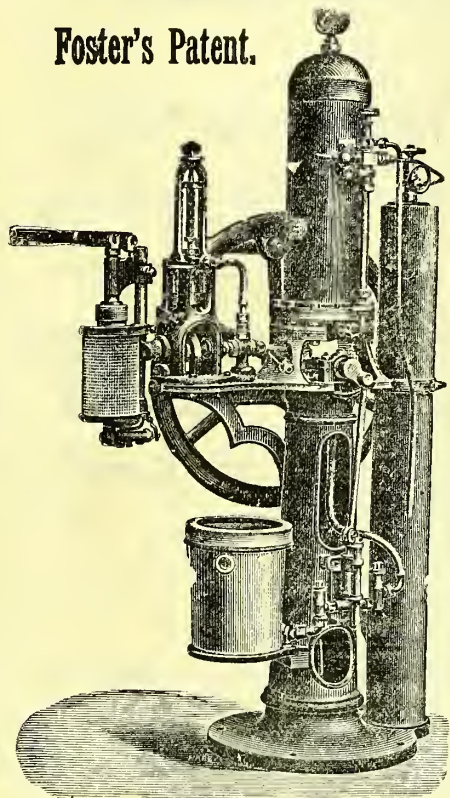
NAME.	Per Dozen.		Original Packages.				NAME.	Per Dozen.		Original Packages.			
	Bots.	½ Bots.	Bottles.	½ Bottles.	½ Bottles.	½ Bottles.		Bots.	½ Bots.	Bottles.	½ Bottles.	½ Bottles.	½ Bottles.
Esclap	15/	12/	25	30/	50	50/	Levico	..	15/	..	..	..	..
Apollinaris	6/3	5/	50	25/	100	39/	Pullna	12/	8/	40	36/	40	25/
Bourbonie (La)	11/	..	50	42/	..	..	Reisdorf	6/	..	50	25/	..	..
Carlsbad	12/	..	50	46/	..	..	Rosbach	6/	5/	50	24/	100	36/
Candal	..	14/	..	..	50	56/	Royat	9/	..	50	34/	..	..
Contrexeville	9/	..	50	35/	..	..	Rubinat	15/	9/	25	30/	50	36/
Flitwick	24/	15/	..	..	..	..	St. Galmier	6/	..	50	22/	..	..
Franz-Josef	..	12/	..	..	50	42/	St. Marco	11/	6/6	50	42/	100	52/
Friedrichshall	13/	10/	25	25/	50	40/	Selters	6/	4/6	50	24/	..	17/
Hunyadi-Janes	15/	13/	25	30/	50	50/	Vals	8/6	..	50	33/	50	..
Johannis-Brunnen	6/	4/6	50	22/	100	35/	Vichy (State Springs)	8/6	7/6	50	33/	..	29/
Kronenquelle	10/	..	50	40/	..	..	"Celestins," "Grande-Grille," &c.	..	..	..	..	..	..

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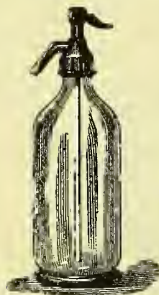
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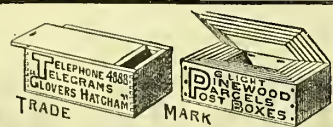
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Most Delicious Sauce in the World. Bottles, 6d., 1s., & 2s. each.

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The Best in the World. 1d. Packets; 6d., 1s., 2s., and 5s. Tins.

GOODALL'S EGG POWDER.

One 6d. Tin is equal to 25 eggs. In 1d. Packets; 6d., 1s., and 5s. Tins.

GOODALL'S CUSTARD POWDER.

Delicious Custards without Eggs. In Boxes, 2d., 6d., & 1s. each.

GOODALL'S BLANCMANGE POWDER

Delicious Blancmange in a Few Minutes. Boxes, 6d. and 1s. each.

GOODALL'S QUININE WINE, B.P.

Best Tonic yet Introduced. Bottles, 6d., 1s., and 2s. each.

GOODALL'S GINGER-BEER POWDER.

Makes the Best Ginger-Beer. Packets, 3d. and 6d.

GOODALL'S BRUNSWICK BLACK.

Painting Stoves, Grates, Iron, Tin, &c. 6d. & 1s. Bottles.

GOODALL'S LAVENDER WATER.

Rich and Lasting Perfume. Bottles, 1s., 2s., and 5s. each.

GOODALL'S PLATE POWDER.

Polishing and Cleaning all Metals. Boxes, 6d., 1s., and 2s.

GOODALL'S JELLY SQUARES.

Make a Delicious and Nutritious Jelly. In 1/2-pint, 1-pint, and Quart Boxes, 3d., 6d., and 1s. each.

PROPRIETORS—GOODALL, BACKHOUSE & CO., LEEDS

PATENT MEDICINES AND

DRUGGISTS' SUNDRIES.

Monthly Price List of Patent Medicines, Druggists Sundries, &c., will be sent post free on application to

GOODALL, BACKHOUSE & CO., LEEDS.

PETER TYRER'S SAUCES

WORCESTER, READING, HARVIE, YORKSHIRE, AND "BOROUGH" KETCHUP.

SILVER MEDAL.

	Per gross.	Extra Quality.		Per gross.	Extra Quality.
4. Sample Bottles, dozen parcels	6/3	6/3	1. Bottles, flat or round, reputed 1 pints	16/-	28/-
1d. Giant " 1-gross boxes	6/9	6/9	" " " 2 pints	26/-	38/-
" " dozen parcels	6/6	8/6	1. Pint Imperial, round stoppered bottles	62/-	62/-
" " 1-gross boxes	7/-	9/-	12 1/2-Gallon Casks (casks free)	20/-	32/-

ROYAL CAFE SAUCE, a Rich Fruity & Exquisite Flavour.

Square Glass Stoppered Bottles, containing nearly 1/2 pint Imperial, 42/- per gross. Sample Bottles at 7/- per Gross.

MANUFACTORY — 30 SOUTHALL PLACE, LONG LANE, BOROUGH, LONDON, S.E.
CHIEF SCOTCH AGENCY—West Nile Street, GLASGOW.

CHAS. SOUTHWELL & CO.

SOLE MAKERS OF THE

EXCELSIOR TABLE JELLIES.

In Packets of
half-pint, pint, and
quart, costing
less than one-third
of the ordinary
Bottled Jellies.



BLACK CURRANT
ORANGE
LEMON
CALEFOOT
VANILLA
NOYEAU
CHERRY
STRAWBERRY
RASPBERRY
PINE APPLE

PRICE LIST ON APPLICATION.

CHAS. SOUTHWELL & CO.

WHOLESALE AND EXPORT CONFECTIONERS,
DOCKHEAD, LONDON, S.E.

"DORINA" NURSERY Biscuits

Every
Chemist is
invited
to send for
FREE FULL-SIZE
SAMPLE TIN.

"They possess distinct
nutritive value."—*The
Lancet*.

"We can recommend
them to the notice
of the profession."—*British
Medical Journal*.

SUPPLIED TO CHEMISTS,
1s. 2d. Tins, 10s per dozen.
Wholesale of all Wholesale Houses.

Manufacturer: H. B. CHIBNALL,
HAMMER SMITH, LONDON, W.



BRAND & CO.'S MEAT JUICE.

B. & CO. beg to call the attention of their numerous friends and the Trade generally to the above article, recently introduced by them, the essential feature of which is the juice of the finest English Meat in its natural state, embodying a fine aroma and flavour, and containing the albumen uncoagulated, together with the other nutritive properties, ready for immediate assimilation.

In Bottles, Wholesale, 28/- per doz. Handsome Tablets free on application to

BRAND & CO., MAYFAIR, W.

NESTLE'S FOOD.

AN ENTIRE DIET FOR INFANTS.

Supplies all the elements necessary for the complete nourishment and growth of the human frame.

Nestlé's Food, being partly composed of milk, is complete and entire in itself, and requires simply the addition of water to make it instantly ready for use. It is not merely an auxiliary, like other Infants' Foods, which require milk to be added in preparing for use.

Recommended by the highest medical authorities as the nearest equivalent to **MOTHERS' MILK.**

Pamphlet, with Medical Testimonials, with sample sufficient for a fair trial, sent post free on application to

H. NESTLÉ, 9 SNOW HILL, LONDON, E.C.

A PAYING LINE

FOR CHEMISTS!

CEYLOND

A MARVELLOUS BLEND OF
TEA,

Attractively packed in $\frac{1}{2}$ -lb. & $\frac{3}{4}$ -lb. packets, to retail at from 1s. to 2s. per lb., duty and carriage paid.
Write for samples, wholesale terms, &c., to
KEARLEY & TONGE, Mitre Square, Aldgate, London, E.C.

ONE GENUINE WITHOUT THE



REGISTERED TRADE MARK.

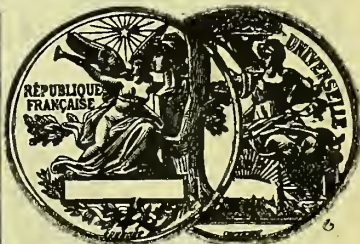
TOWER TEA

HIGHEST AWARD, PARIS, 1889.

Analysis by the "LANCET," December 20th, 1890:—

"We have submitted to examination the Teas of the Great Tower Street Tea Company (Limited). They all yield liquors which are generous to the taste, and of full strength and vigour. The results of our analysis indicate the purity and genuineness of the samples."

Where Vacancies exist, Agencies are appointed by



PRIZE MEDAL, PARIS, 1889.

THE GREAT TOWER STREET TEA CO., LIMITED
5 JEWRY STREET, LONDON, E.C.



PASCALL'S GOLDEN MALTEX

PATENTED.

Contains 25% of Allen & Hanburys' Extract of Malt.

A NOVEL CONFECTION.

Delicious Flavour. Brilliant & Attractive Appearance.

SELLS AT SIGHT.

Vide Dr. Tanner's Report, and *The Chemist and Druggist*, April 20th.

1/- Bottles, 9/- per dozen; 1-lb. Bottles, 18/- per dozen
and in 2-lb. and 4-lb. Bottles, 1/4 per lb.

HANDBILLS POST FREE ON APPLICATION.

OF ALL WHOLESALE HOUSES OR OF THE MANUFACTURER, [1]

JAS. PASCALL, BLACKFRIARS ROAD, LONDON, S.E.

THOS. GUEST & CO.

City Works, Carruthers St., MANCHESTER.

MAKERS OF ALL DESCRIPTIONS OF MEDICATED LOZENGES.

B.P., T.H. Ph., and General Proprietary Lozenges. Finest Gum Jujubes and
Pastilles—Glycerine and Black Currant, &c. Granular and all other Effervescing
Preparations. Boiled Sugars, Floral Tablets (1892).

BEFORE BUYING ANY OF THE ABOVE, PLEASE SEND FOR SAMPLES AND COMPARE.

TELEPHONE NATIONAL 235. TELEGRAMS "GUESTO."

MULHENS' ORIGINAL No. 4711 BRAND OF EAU DE COLOGNE

THE
Blue & Gold Labelled

EXTRACT OF

DOUBLE STRENGTH

IS RETAILED AT THE

LONDON BRANCH

AT

2/6 per 4 oz. bottle

OR

12/6 per case of six.

HIGHEST

AWARDS

WHEREVER

EXHIBITED.



THE

Blue & Gold Labelled

EXTRACT OF

DOUBLE STRENGTH

IS

The PUREST

The STRONGEST

The MOST LASTING

YET

The MOST DELICATE

EVER PRODUCED.

NEVER VARIES

IN

QUALITY.

ONLY FIRST PRIZE AT COLOGNE, 1875.

WHEN ORDERING DO NOT OMIT TO MENTION THE

No. 4711 AND THE BLUE AND GOLD LABEL.

OF ALL WHOLESALE FIRMS IN THE UNITED KINGDOM.

Manufacturer : FERD. MÜLHENS, 4711 Glockengasse, Cologne-on-Rhine.

BRANCHES AT NEW YORK, VIENNA, RIGA, ODESSA, AND

LONDON, 62 NEW BOND STREET, W.

Mr. R. T. REUTER, Wholesale and Export Agent SHIPPERS are requested to communicate with Mr. Reuter. See also "The Chemist and Druggist" of 24 Dec., 1892, page 906.

CAPSULED "McK. & R." PILLS.

McKesson & Robbins : Originated 1870 : New York.

WHY SHOULD THE "McK. & R." PILLS BE PRESCRIBED?

1. Because they are prepared from materials of the highest quality only.
2. Because they are made according to the B.P. or other Standard Authorities, and therefore all the combinations are well tried and of recognised value.
3. Because they are taken pleasantly—being tasteless—and readily, being ovoid in form.
4. Because they are not subjected at any stage of preparation to the injurious action of heat.
5. Because the coating of *pure transparent gelatine* preserves the contents from oxidation.
6. Because they are always soluble, and the contents soft and quickly disintegrated.

LIST OF PRINCIPAL CAPSULED PILLS.

Aloes, all the B.P. combinations 5 gr.		Laxative, Vegetable—	
Aloes, Dilute (Dr. Hall Dianer Pill) 4 gr.		Res. Podoph.	
Aloes Barb.		Ext. Hyoscy.	
Sapoals Pulv.		Ext. Tarax, aa 1-4 gr.	
Aloes and Nux Vomica—		Ext. Coleo. Co. 1 gr.	
Aloes Soc. 1½ gr. Ext. Nucis Vom. ½ gr.		Jalapa	
Alein 1 gr. Ext. Nucis Vom. ½ gr.		Res. Lepand. aa 1-2 gr.	
Aloin, various combinations.		Ol. Menth. Pip.	
Anti-Dyspepsia (Fothergill)—		Mercury, Binioidide 1-16 gr.	
Strychnina ½ gr. Pulv. Ipecac. 2-3 gr.		Mercury, Proto-Iodide 1-20, 1-16, 1-8, 1-4 gr.	
Pulv. Piper Nig. 1½ gr. Ext. Gent. 1 gr.		N.B.—Made from the absolutely pure yellow impalpable powder, free from mercury and from binioidide.	
Arsenic Acid 1-20, 1-50 gr.		So-called "green" proto-iodide contains uncombined mercury.	
Asafetida, U.S. and B.P. 5 gr.		Mercury with Chalk 1 gr.	
Atropine 1-100, 1-300 gr.		Morphine Muriate 1-8, 1-4 gr.	
Blue Pill, B.P. 1, 2, 3, 5 gr.		Nitro-Glycerine 1-200, 1-100, 1-50 gr.	
Blue Pill, with Colocyath and Hyoscyam. 5 gr.		Opium 1 gr.	
Calcium Sulphide 1-10, 1-4, 1-2, 1 gr.		Opium and Camphor 1 gr.	
Calomel, Colocyn., and Hyosc. 5 gr.		Opil Pulv. 1 gr. Camphora 2 gr.	
Calomel Co., B.P. 5 gr.		Pepsin, Pure 1 gr.	
Camphor and Hyoscyam. 2 gr.		Phosphorus 1-100, 1-50, 1-30 gr.	
Camphora. Ext. Hyoscy., aa 1 gr.		N.B.—In no kind of Pill are the advantages of the "McK. & R." method better exemplified or more in request.	
Cannabis Indica 1-4, 1-2 gr.		No other brand of Phosphorus Pills is equally reliable for the administration of the unoxidised medicament.	
Cascara Sagrada 3 gr.		Phosphorus and Iron—	
Cathartic Comp., U.S.P.		Phosphor. Pur. 1-50 gr. Ferr. Redact. 2 gr.	
Ext. Jalap 1 gr. Hyd. Subchlor. 1 gr.		Phosphorus, Iron, and Quinine—	
Ext. Coleo. Co. 1-1-3 gr. Gambog. 1-4 gr.		Phosphor. Pur. 1-100 gr. Ferri Carb. 1 gr.	
N.B.—The ready solubility of the "McK. & R." Pills is readily proved by taking a dose of these.		Quinnina Sulph. 1 gr.	
Colocynth Comp., B.P. 4, 5 gr.		Phosphorus and Nux Vomica—	
Colocynth, other combinations.		Phosphor. Pur. 1-50 gr. Ext. Nucis Vom. 1-4 gr.	
Copaiba Compound—		Phosphorus and Quinine—	
Cubeba Pulv. 2 gr. Mass. Copaib. 1 gr.		Phosphor. Pur. 1-50 gr. Quinnina Sulph. 1 gr.	
Ferri Sulph. Exsic. 1-2 gr. Tereb. Venet. 1-1-2 gr.		Phosphorus and Valerianate of Zinc—	
Corrosive Sublimate 1-30, 1-20, 1-10 gr.		Phosphor. Pur. 1-50 gr. Zinci Valer. 1 gr.	
Croton Oil 1-2 gr.		Picrotoxin 1-80 gr.	
Diuretic—		Podophyllin 1-8, 1-4, 1-2 gr.	
Ext. Buchu, Potass. Nitrat. 1 gr.		Quinine, Bisulphate 1-4, 1-2, 1, 2, 3, 4, 5 gr.	
Soliss Pulv. 1-2 gr.		Quinine, Sulphate 1-4, 1-2, 1, 2, 3, 4, 5 gr.	
Emmenagogue—		Quinnina Co. (Anti-Malarial).	
Ferr. Sulph. Exsic. 1-1-2 gr.		Largely prescribed in America with excellent results.	
Thus, American 1-1-2 gr.		Rhubarb Comp., B.P. 5 gr.	
Aloes Socot. 1-2 gr.		Rhubarb with Blue Pill 5 gr.	
Ergotin 3 gr.		Salicylic Acid 2, 5 gr.	
N.B.—Each Pill = 30 gr. ergot or 30 ms. fl. extract. This form is more reliable and uniform in effect and more agreeable than the liquid preparations.		Soap Comp., B.P. 5 gr.	
Menynymia 2, 3 gr.		Squill Comp., B.P. 5 gr.	
Iodoform and Iodoform with Iron 1 gr.		Strophanthus 1-20, 1-4 gr.	
Ipecac. 1-4, 5 gr.		Strychnine 1-50 gr.	
Ipecac. Co. 5 gr.		Tonio Laxative (Fothergill)—	
Ipecac. and Squill, B.P. 5 gr.		Quinnina Sulph. 2-3 gr. Ferri Redact.	
Iron Pill, B.P. Add. 3, 5 gr.		Strychn. 1-30 gr. Ext. Bellad., aa. 1-4 gr.	
Iron Arseniate 1-8 gr.		Valerianates, Iron, Quinine, and Zinc.	
Iron reduced by Hydrogen (Quevenne) 1, 4 gr.		Warburg's Tincture and the same without Aloes.	
Iron and Quinine Citrate 2 gr.		Each Pill = 1 fl. drm. of the Tincture.	
		Zinc Phosphide 1-4, 1-2 gr.	
		Zinc Valerianate 1 gr.	

Special Combinations of 3,000 or more Pills made and Capsuled to order for Hospitals, &c., at Special Quotations.

London Agency:—Messrs. S. Maw, Son & Thompson, 7 to 12 Aldersgate Street, E.C.

ALSO SUPPLIED BY

MESSRS. BURROUGHS, WELLCOME & CO., Snow Hill Buildings, London, E.C.;

MESSRS. GRIMWADE, RIDLEY & CO., 7 Union Court, Old Broad Street, London, E.C.

NOTICE!!

THE FIRM of MARIA CLEMENTINE MARTIN,
NUN

Have been Awarded PRIZE MEDALS for their Celebrated

EAU DE COLOGNE

AT THE FOLLOWING EXHIBITIONS, VIZ:—

LONDON, 1851. RHENISH PROVINCES, 1852. NEW YORK, 1853.
PARIS, 1855. LONDON, 1862.
VIENNA, 1873. SYDNEY, 1879. MELBOURNE, 1880.

Facsimiles of Prize Medals Awarded at London Exhibitions, 1851 & 1862
appear on Label of each Bottle. Without such, None are Genuine.

BEWARE OF IMITATIONS!!

EAU DE COLOGNE of the “**NUN**” (so-called), manufactured by any firm
other than the above, is spurious, and an infringement of registered proprietary rights.

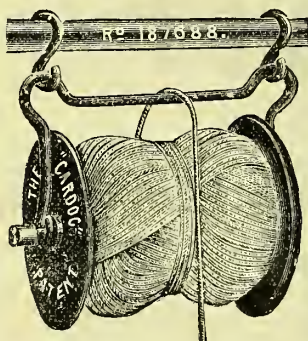
PRICE LIST.

	Duty Paid, Net.	In Bond.		Duty Paid, Net.	In Bond.
No. 1.—Half Shorts.....	3/6	5/6	No. 4.—Long Green Flasks.....	16/-	11/-
No. 2.—Shorts.....	16/-	11/-	No. 5.—Wickered Bottles (Small)...	26/6	19/3
No. 3.—Shorts (finely Wickered) ...	21/3	16/6	No. 6.—Wickered Bottles (Medium) 53/-	38/6	
No. 7.—Wickered Bottles (Large).....	106/-	duty paid, net; 77/- in bond.			

Small Cases assorted to order (of not less than £3 value in bond) delivered free freight, less 7½ per cent. discount.

All Sizes can be obtained through any Wholesale House, or direct from the Sole Agents for
Great Britain and Ireland,

C. E. MASON & CO.,
2 BEECH STREET, LONDON, E.C.

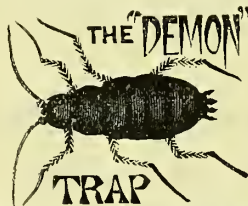
THE
"CARDOC" REELS.

Balls of Twine put on the
"CARDOC" TWINEHOLDER
Wind from the outside to the last inch.
No Waste. No Ravel. Fits any Ball.
For 4 ozs. 8 oz. 16 oz.
11/9 14/6 19/ doz.

U.S. CLOTHES CLIP.



The Best Spring Clip yet made. Quite New.
3 1/4 inches long, and packed in Show Boxes of
1 gross for 3s.



THE MOST INGENIOUS YET INVENTED.
Has been proved to catch thousands where
other traps fail.
Price reduced to 8/6 per doz.
All Merchants will supply this, the only
real Beetle Trap.

THE "SIMPLEX"
ORANGE PARER.

Now all can indulge to their heart's content
with clean hands.
STOCK OF EIGHTEEN KINDS.
Retail from 2d to 5s. each.

WAX TAPERS.



About 7 cwt. for Sale at Special Price
of 6d. lb.

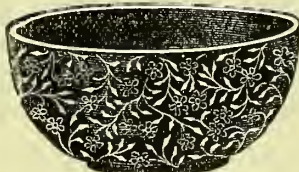
36 TO 40 YORK ROAD, KING'S CROSS, LONDON, N.

BATH
CORK.

CORK being a non conductor is warmer
and more comfortable to the feet when stepping
out of a BATH than any other material.
Apply for prices.

STRAW BEE-HIVES.

New Season's Goods for delivery up to June
now in orders received.

UNBREAKABLE
PULP WARE.

CHEMISTS' SHOW BOWLS.

Can be had in any of the following colours :
Black, Blue, Red, Green, Oak and White,
either Plain or Decorated.

6	7 1/2	9	10 1/2	12	13 1/2	in.
5/6	9/-	13/6	19/6	22/6	25/6	doz.

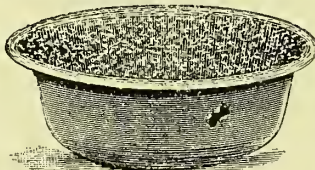
SHALLOW DISPLAY BOWLS.



Plain Colours, Handsomely Decorated.

9	10 1/2	12	13	inch.
7/6	9/-	12/-	15/-	per doz.
9/-	11/3	15/-	18/-	"

"UNBREAKABLE" BASINS.



12-in.	13-in.	15-in.
Per doz. 9/-	9/9	14/3
Assorted Colours.		

LEMON JUICE
EXTRACTOR.

2/ per doz., or 22/- per gross.
In sub-divided boxes of 1 dozen.

TOILET PAPER.



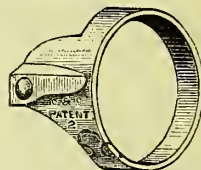
In 12-oz. Rolls, PERFORATED.
In Cases of 100 Rolls.
No. 1. Thin Manila, 1000 Sheets,
6/- per doz., 48/- per case.
No. 2. Superior, 1000 Sheets,
4/5 per doz., 34/- per case.
No. 3. Seconds, 1000 Sheets,
3/6 per doz., 28/- per case.
Paper in 12-oz. Rolls. NON-PERFORATED.
In Cases of 100 Rolls.
No. B. 3/3 per doz., 25/- per case.

PINE-TISSUE TOILET PAPER.



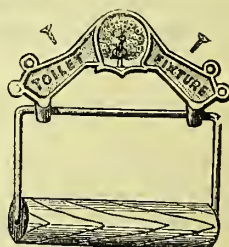
In packets of about 500 Sheets.
1/10 per doz. packets. If gross, 20/-
If 5 gross, 19/6

The "LIGHTNING" STRING CUT.



To be worn on the first finger of the left
hand. The wearer is able to cut twine or string
from any position. If once used will be-
come indispensable to Countermen, Ware-
housemen, and all users of strings and twines.
Made in 6 sizes. Price per doz., 8s.

LAVATORY FIXTURES.



This fixture "THE PEACOCK."
Complete as shown. Each one in a box.
Price per doz., 2/-; per gross, 22/-

GARD & CO.'S GOODS.



Plate Cloths (3 in a box) .. 7/6 per doz.
Brass and Steel " .. 7/6 "
Jewel " .. 3/6 "
All Drug Houses will supply.

W. B. FORDHAM & SONS, LTM. ESTABLISHED 1826.

Telephone Number, 1852.

Telegraphic Address—CHEMICUS LONDON.

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Godge & Oult (mint)
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Fletcher, Fletcher & Stevenson
Grimwade, Ridley & Co.
Laughland, McKay & Baker
Murdock, J., & Co.
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Bush's Liquid Beef
Denaeyer's Peptone and Ex-
tract of Meat Co. (Lim.)
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Lieber Co.
Liquor Carnis Co. (Lim.)
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Hoskin, Squire & Francis
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Moss & Co.
Potter & Clarke
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(The same safe)
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ins and Sifting)

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Cocking & Co.
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Tyrer, P. | Vint, T. D.

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Lloyd, T. H., & Co. (Jelly)
Richardson, J., & Co. (Lecce-
ster) (Lim.) (Aspalpine)

OPTIC. TRASHES
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Darton, F., & Co.
Perken, Son & Raymond
Fuerst Bros.

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Kuhn B. (Dr. Finkler)

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Preserv)

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Allen & Hanbury
Anderson & Co.
Beecham, T. (Pills)
Bow's "Laxative"
Bromley, C. (Gout and Rhen.)
Chemists' Association (Lim.)
Clarke's Blood Mixture
Dr. Harbert
Dr. Williams' Pills
Edwards & Son
Evans, Lescher & Webb
Fassett & Johnson
Gerasdel's (Powders)
Goodall, Backhouse & Co.
Guy's Tonic
Hakka Cream (A.P. Bush & Co.)
Holloway (Pills and Oint.)
Hovenden & Sons
Kreat Haliva
Lalor (Phosphodyne, &c.)
"Lungill" Co.
March & Co.
May, Roberts & Co.
Newbery & Sons
Owbridge's Lung Tonic
Roberts & Co. (Foreign)
Roode, Dr. (Lim.)
Sagash (Lim.)
Santon, W., & Co.
Wilson, A. (Bunter's Nervine)

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Chemists' Association (Lim.)
Clarke's Blood Mixture
Dr. Harbert
Dr. Williams' Pills
Edwards & Son
Evans, Lescher & Webb
Fassett & Johnson
Gerasdel's (Powders)
Goodall, Backhouse & Co.
Guy's Tonic
Hakka Cream (A.P. Bush & Co.)
Holloway (Pills and Oint.)
Hovenden & Sons
Kreat Haliva
Lalor (Phosphodyne, &c.)
"Lungill" Co.
March & Co.
May, Roberts & Co.
Newbery & Sons
Owbridge's Lung Tonic
Roberts & Co. (Foreign)
Roode, Dr. (Lim.)
Sagash (Lim.)
Santon, W., & Co.
Wilson, A. (Bunter's Nervine)

PILLS (Coated, &c.)
Allen & Hanbury
Anderson & Co.
Beecham, T. (Pills)
Bow's "Laxative"
Bromley, C. (Gout and Rhen.)
Chemists' Association (Lim.)
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Roberts & Co. (Foreign)
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Blyton, Astley & Co.
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Hovenden & Sons
Mulhens, F.
Newbery & Sons (Bardoes)
Pears' Soap (Lim.)
Price's Patent Candia Co.
Rosemarine Manufs. Co.
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Sandell & Co. | Shirley, A. W.
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Tidman & Son | Treat, B. O.
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Warwick Brothers
West, T. (Oxell's Moss)
Woolley, Sons & Co. (Powder)
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Burton, W., & Sons
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Barron, Harvey & Co.
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Boehm, F.
Boehring, C. F., & Sohn
Boulton, J., & Co. (Lim.)
Brady & Martin
Burgoyne, Burdidge & Co.
Burroughs, Wellcome & Co.
Chassaling & Co.
Cheesebrough, O. H., & Co.
Duncan, Flockhart & Co.
Ferris & Co.
Fletcher, Fletcher & Co.
Giles Schauch & Co.
Greiff, B. W., & Co.
Hoskin, Squire & Francis
Hewlett & Son
Howards & Sons
Jeyes Sanitary Compounds Co.
Kath & Co. (Gone, Pastures
Lambert Pharmacy Co.
Largen, G. W.
May & Baker (Lim.)
Moss, J., & Co.
Oppenheimer, Son & Co. (Lim.)
Potter & Clarke
Richardson, John, & Co. (Lei-
cester), Lim.

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PLASTERS

Evans, Sons and Co.
Johnson and Johnson
Sensbury & Johnson
St. James

POWDERING

Bradley & Bonidas (Albature)
Chancellor & Co.
Fletcher, Raybould & Co.
Fordham, W. B., & Sons (Lima.)
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Toogood, (E.O. Pots. resist.)

POULTRY FOOD

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Economic Printing Co.
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Silverlock, H. J. Townsend, J.
Speller & Co.

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Stern, G. and G.

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Greiff, R. W., and Co.
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Burroughs Bros.
Burroughs, Wellcome and Co.

SALICIN

McFarlan and Co.
Smith, T. and H., and Co.

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Burroughs, Burdidge and Co.
Fuerst Bros.
Kuhn, B.
Zimmermann, A. and M.

SALT

Stern, G. and G. (Peppella)

SAUCES, PICKLES

Goodall, Backhouse and Co.
Mason, G., and Co. (Lima.)
Tyer, F.

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Hovenden & Sons (Bursia)
Lloyd, Mrs. A. B. (Wurster)

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Pharmacy (Lima.)
Davis, F.
Liverpool School of Pharmacy
London Homoeopathic and
Medico School
Manchester Col. of Pharmacy
Northern School of Pharmacy
Sheffield School of Pharmacy
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Pharmacy (Lima.)
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Potter & Clarke

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Reath and Hinchliffe (Ld.)
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Evans, Sons and Co.
Fordham, W. B., & Sons (Ld.)
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Lynch and Co. (Lima.)
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SHOP FITTERS

Bowling and Gervier
Bygraves, and W.
Joseph, P.
Natali, H., and Co.
Natali, H., and Co.
R. Howlett
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Barclay and Sons (Lima.)
Blondeau and Co. (Vielia)
Bronnley, H., and Co.
Calvert, F. G., and Co.
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Dodd Bros.
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Jeyes Sanitary Compounds Co.
Mulhens, F. J. Pears, A. & F.
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Burton, W., & Sons

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Botwright and Gray
Daxton, F., and Co.
Perkon, Son and Payment

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Cresswell Bros. & Schmalts
Evans, Sons and Co.
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Chancellor & Co. (Maat)
Ortchley (Glass) [Double]

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Anstin and Co. (Sprinklers)
Barnett and Foster
Melin, C.
Stipendium Stopper Co

STOVES

Clark, S., and Co. Lima.

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Fletcher, Fletcher and
Stevenson

Gibson, R., and Sons

SUGAR OF MILE

Burroughs Bros.

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Burroughs, Wellcome and Co.
Greiff, R. W., and Co.
May and Baker (Limited)

SULPHURIC ACID

Hof, C., and Co.

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Bailey, W. H., and Son
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Frazier & Green
Harrison, T. H.
Haywood, J. H.
Henckel, J. A.
Krohne and Sesemann
Liverpool Patent Lint Co
Powell & Barstow
Quelch, H. C.
Richardson, John, & Co. (Ld.)
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Tyer Rubber Co
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Brady and Hinchliffe (Ld.)
British Syphon Co.
Fordham, W. B., & Sons (Lima.)
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Klinier Bros. | Malin, C.
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Fletcher, Fletcher (Liquore)
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Gorsan, J. E. (advertising)

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Gt. Tower St. Tea Co.
Kearley & Tonge

TEETHING PADS

Marriott, E., & Co.

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Barclay and Sons (Lima.)
Darton, F., and Co.
Evans, Sons and Co.
Wicks, J. J.
Newbery, F., & Son.
Parker and Son and Payment

TOILET

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Burroughs, Wellcome & Co.
(Lancoline)
Dee Oil Co. (Lima.)
Hovenden & Sons
Quelch, H. C.
Rowland, A., and Sons
Truett, H. P. (Limited)

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Anglo-American Drug Co.
(Lima.)
Beecham, T.
Jewsbury and Brown
Sutton, O., and Co. (Block)
Wilson, A. (Bunter's)
Woods, M. (Arca)

TOOTHACHE CURE

Tait & Co.

TRUSSES

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Evans, Sons & Co.
Haywood, J. H.
White & Co.
Wood, V.

URETHANE

Howards & Sons

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Day and Son
Day, Son and Hewitt
Eilman, Sons and Co
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Jeyes Sanitary Compounds
Lloyd, T., Howard & Co.
Rackham & Co.
Rookledge, F. E.
Soratis (Doge)
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Frazier & Green (Pads)
Sanitary Wood Wool Co., Lima.
(Shield)
Vaccine Association (Lima ph)

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Crocker, G. E., & Co.
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Burgoyne, Burdidge and Co.
Bush, W., and Co.
Bush, W. J., and Co.
Clay, Dod and Co.
Davy, Yates & Routledge
Delecre, G., & Co.
Evans, Sons and Co.
Fassett & Johnson
Gerris and Co.
Fox, W., and Sons
Goodall, Backhouse and Co.
Harker, Stagg and Morgan
Howlett and Son
Hill, A. S., and Son
Hodgkinson, Treacher and Co.
Leithorne and Salmer
Lloyd, T., Howard and Co.
McFarlan, J. F., and Co.
Morrison, K., & Co.
Murdoch, J. R.
Rooster and Clarke
Richardson, J., and Co.
Smith & Sons | James & Co.
Stafford Allen and Sons
Thompson and
Walker, Trok and Co.
Willows, Francis and Salmer
Woolley Jas., Sons and Co.
Wright, Layman and Umber

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Armbrsch, Nelson and Co.
(Ooca)
French Hygiene Basy. (Ooca)
Goodall, Backhouse and Co.
Hirst, Brooke & Hirst (Lima.)
(Orange)
Irlis & Co. | Jackson, T.
Miller, A., & Co. (Orange)
Robinson, R.
Smith, S., & Co. (Orange)

THOMAS TYRER & CO.

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GUARANTEE ALL THEIR PREPARATIONS FOR
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SPECIALITY:

PURE

ETHERS

AND

METHYLATED

for

ANÆSTHETICS,
REFRIGERATION, ETC.

MADE FROM

PURE O-720

Methylated Spirit and Free Methyl Compounds.



A GREAT SUCCESS!!

BAILEY'S SUSPENSORY BANDAGES.

A. B. C. SYSTEM.

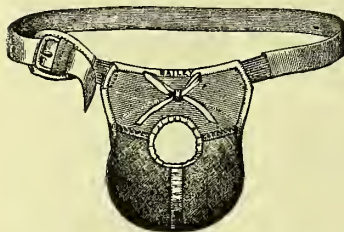


FIG. 1.

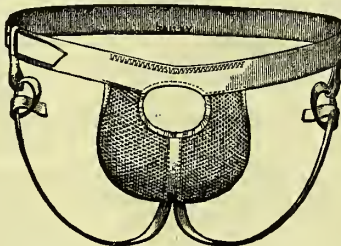


FIG. 2.

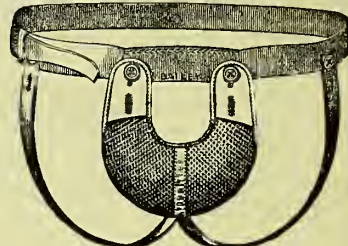


FIG. 3.

Cabinet of 2 dozen assorted, 30/- USUAL DISCOUNT.

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GENTLEMEN,—Please repeat our last order for "Suspensory Bandages." We think your idea of arranging the sizes and qualities by the use of numbers and letters a very excellent one, as it is most convenient to the Chemist in ordering, and we find our customers make use of your method. It brings us many repeat orders.

Yours faithfully,

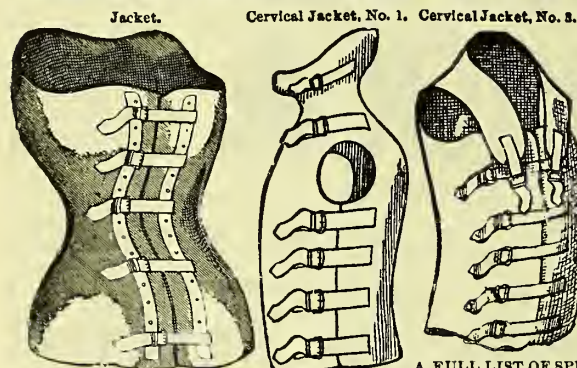
The Foregate, WORCESTER.

ANDERSON & VIRGO.

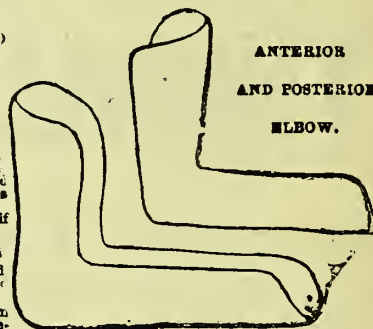
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COCKING'S ADAPTABLE PORO-PLASTIC JACKETS AND SPLINTS.

Patentee and Sole J. T. COCKING, PLYMOUTH.
Manufacturer.



JACKET
(In cases of slight deformity)
INSTRUCTIONS FOR MEASUREMENT
Circumference at axilla.
" waist.
" hips.
Length from axilla to great trochanter.
In severe angular cases circumference over apex of curve, position of ditto, and contour should be given; in lateral cases a description of the case.
In all cases it must be stated if for male or female.
CERVICAL JACKETS
Same measurements required and circumference at neck, and length from neck to axilla.
Any part of the Jacket can in the process of manufacture be left soft.



A FULL LIST OF SPLINTS AND PORO-PLASTIC IN SHEET MAY AD ON APPLICATION

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Manufacturers for Wholesale and Export of

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CHICAGO,
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We don't make
PEPSIN WINE at 1/8 per pint,
or
ACID, GLYC. PEP. at 1/10 per lb.
BUT YOU CAN
from Armour's
GLYCEROLE PEPSIN.

You don't want to pay 10s.
to 12s. for what you can make
for 1s. 10d.
1-lb. Bottles, 6s. 3d.
1-gall. (U.S.) Jugs, 32s.
Also,
Glycerole Pancreatin.

PEPSIN TABLETS.

PURE
3 GR.
Each Case now bears an at-
tractive label, with the words :
"ARMOUR'S
PURE PEPSIN TABLETS
FOR INDIGESTION."
Bottles of 20 Tablets, 8s. 6d. per doz.
" 75 " 25s.
1-lb. Tins " " " 32s.

PHARMACEUTICAL

WE
KILL
NEARLY
2,000,000 PIGS
PER ANNUM.

Peptonising Tablets.

For the predigestion of foods.
Recipes supplied with each tube.
Tubes of 15 tablets, 1 doz. in a
case, 7s. 6d. per case. 1-lb. tins,
10s. 6d.

Pure Pancreatin.

1-oz. bottles ... 3s. 6d.
1-lb. tins ... 32s.
Retains the power of all the
pancreatic ferments.

PEPSIN

1:2,500 Test.
(a) Insoluble Powder.
Non-hygroscopic.
For Pill or Powder.
Makes Pepsin P.B. at 11d.
per oz.
See our Formulary.
(b) Scale Soluble.
(c) Powdered Scale "
For liquid forms.
1-oz. Bottles ... 3s. 6d.
1-lb. Tins ... 32s.

MAILED FREE.

"Armour's Formulary"
Of Digestive and Medicinal
Preparation.
"Culinary Wrinkles"
AND
Attractive Booklets
FOR DISTRIBUTION
TO MEDICAL MEN.

5,000 TEST.

OUR NEW PEPSIN
GRANULAR.
INODOROUS.
NON-HYGROSCOPIC.
READILY SOLUBLE.
Combines the good points of
both soluble and insoluble
PEPSINS.

USE $\frac{1}{2}$ grain in place of 1 grain
Pepsin, P.B.
1-oz. bottles ... 7s.
1-lb. tins ... 64s.

NUTRIENT WINE OF Beef Peptone.

PURE PREDIGESTED BEEF: HIGH-
CLASS SHERRY.
A Real Food,
its sale
requires
No Wine Licence.
16-oz. Bottles, 4s.; per doz., 39s.
Samples for Medical Men,
and special pamphlets with each
case.

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PRIME BEEF.
NO BURNT FLAVOUR.
NO CHEMICAL TASTE.
PREFERRED BY
ALL GOOD COOKS.

ESSENCE OF PEPSIN.

A finely flavoured Fluid
Pepsin of great activity.
THE LANCET says: "A
distinct advance on ordinary
preparations of this class."
4-oz., 2s.; 18s. per doz.
8-oz., 3s. 6d.; 33s. "
SELLS WELL.
PAYS WELL.

ARMOUR'S PRODUCTS
ALL PAY
THE RETAILER
A LIVING PROFIT.

ALL THE LEADING
WHOLESALE
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THEM.

THYROID GLAND "TABLOIDS."

We have for some time past prepared, at the request of several physicians, various pharmaceutical products of the sheep's fresh Thyroid Gland for trial in clinical practice; and we are informed by them that the administration of Thyroid Gland "Tabloids" is preferable to the method of feeding with the crude glands or the extracts. These "Tabloids" are not prepared with extractive substances, but consist of the dried gland, each "Tabloid" being equivalent to five grains of the fresh moist lobe.

The Glands (each attached to a section of the trachea) are delivered to us within three hours of the animal being slaughtered; they are carefully dissected, sliced, and examined for cysts and other morbid formations, all diseased lobes being discarded. The Glands are carefully dried at a very low temperature; they are then pulverised, and compressed lightly into "Tabloids."

Competent physiologists inform us that as the active substances may be either ferments, globulins, or albumoses, our "Tabloids," being made of the entire glandular substance, should prove eminently satisfactory.

R "Tabloid" Thyroid Gl., 5 gr. (B., W. & Co.).

The advantages of the Thyroid Gland "Tabloids" are:—1. They contain all the active principles. 2. They keep perfectly in any climate. 3. The uniform dose may be regularly administered. 4. The "Tabloids" are easily and agreeably taken by children and fastidious patients.

We have supplied preparations of the Thyroid Gland for clinical trial in liquid, powder, and "Tabloid" forms, and are assured that the "Tabloids" possess distinct and unique advantages over any other method of thyroid medication.

The doses best given, according to published reports, are from one-half to an entire lobe of the average sheep's thyroid gland, equivalent to from six to twelve "Tabloids" per diem—*i.e.*, two to four "Tabloids" three times daily. They may be swallowed entire with water or other fluid, and they may be also given in all fluid foods.

FOR THYROID MEDICATION IN THE TREATMENT OF

Myxædema, Sporadic Cretinism, Goitre, AND OTHER ALLIED DISEASES, SEE MEDICAL JOURNALS.

Thyroid Gland "Tabloids," 5 gr. (B., W. & Co.), are dispensed by all leading Chemists, and are supplied to the Trade in bottles of 100, at 2s. 6d. per dozen.

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COCA FOR TROUBLESOME THROATS.

VINACOCA is a direct stimulant of the most active kind, supporting life in a manner almost miraculous, without disturbance of the vital functions. For the voice, a wineglassful before any ordeal is sufficient. Its effect upon the vocal cords is surprising, and of great value to Public Speakers, Professional and other Singers, and Lecturers.

The VINACOCA is carefully prepared from the best Coca Leaf only. (No addition of Cocaine.)

ONLY

ONE WINE (CHOICE MADEIRA)
ONE QUALITY (A1)
ONE PRICE

THE BEST & CHEAPEST ON THE MARKET.

Sold in Bottles at 3s. 6d. each, or 40s. per dozen, Retail. Usual Trade Discount.
Pamphlets for distribution, carriage paid.

COCA is prepared in various forms: COCA LOZENGES, COCA TABLETS, COCA ELIXIR, COCA TEA, COCA CHOCOLATE, STAMIN (Coca and Beef Extract), COCA TOBACCO, &c.

MENTHOLIN (PATRONISED BY ROYALTY) PREVENTS INFLUENZA.

Is a Perfect Remedy for Coriza or Cold in the Head. Highest opinions from Public and Press.

Retail Price, 1s. 1½d. per Box.

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THE FRENCH HYGIENIC SOCIETY,

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"TABLOIDS" OF COMPRESSED DRUGS FOR HYPODERMIC MEDICATION.

THE growing importance of the Hypodermic method, the marvellous results by it, the vast improvement in the instruments employed, and the perfection to which the Hypodermic "Tabloid" has been brought (to the utter displacement of unreliable and irritating solutions) are all matters of peculiar interest to the earnest practitioner. The alarming symptoms and the untoward physiological disturbances so frequently observed after the administration of ready-made and often partially decomposed solutions are altogether avoided when the injection is prepared from the Hypodermic "Tabloid." They are guaranteed to be absolutely accurate in dosage, do not alter, are really reliable and easily soluble, and can be thrown into solution in a few seconds.

HYPODERMIC "TABLOID" POCKET CASES.

No. 7, arranged to contain 12 Tubes of the Hypodermic "Tabloids," Hypodermic Syringe, with 2 Needles, and Mortar and Pestle for crushing the "Tabloids" .. 5s.

Ditto, ditto, fitted complete, and filled with 12 Tubes of the Hypodermic "Tabloids" selected from the list .. 15s.

Ditto, ditto, in aluminium .. 20s.

No. 9, arranged to contain 6 Tubes of the Hypodermic "Tabloids," Hypodermic Syringe with 2 Needles, and Mortar and Pestle for crushing the "Tabloids" .. 5s.

No. 9, arranged and fitted complete, and filled with 6 Tubes of Hypodermic "Tabloids" selected from the list .. 12s.

No. 13, arranged to contain 12 Tubes of the Hypodermic "Tabloids" and solid silver Hypodermic Syringe .. 4s.



"The Little Giant Armamentarium."—*Edin. Med. Jour.*

No. 13, fitted complete, and filled with 12 Tubes of Hypodermic "Tabloids" selected from list .. 20s.

No. 21, arranged to contain 9 Tubes of the Hypodermic "Tabloids," Hypodermic Syringe, with 2 Needles, 2 small Vials for water or ether, Mortar and Pestle .. 5s.

Ditto, ditto, fitted complete, and filled with 9 Tubes of Hypodermic "Tabloids" selected from list .. 15s.

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	No.		No.
Aconitine, Nitrate Crystalline ..	1-260 gr. .. (36)	Morphine Hydrochlor. ..	1-4 gr. .. (56)
Apomorphine Hydrochlorate ..	1-10 gr. .. (19)	Morphine Sulphate ..	1-12 gr. .. (6)
Apomorphine Hydrochlorate ..	1-15 gr. .. (51)	Morphine Sulphate ..	1-8 gr. .. (5)
Atropin Sulphate ..	1-150 gr. .. (15)	Morphine Sulphate ..	1-6 gr. .. (4)
Atropin Sulphate ..	1-100 gr. .. (14)	Morphine Sulphate ..	1-4 gr. .. (3)
Atropin Sulphate ..	1-60 gr. .. (13)	Morphine Sulphate ..	1-3 gr. .. (2)
*Caffeine Sodio Salicylate ..	1-2 gr. .. (33)	*Morphine Sulphate ..	1-2 gr. .. (1)
Cocaine Hydrochlorate ..	1-6 gr. .. (22)	Morphine Sulphate ..	1-12 gr. .. (12)
*Cocaine Hydrochlorate ..	1-2 gr. .. (40)	Atropine Sulphate ..	1-250 gr. .. (55)
*Cocaine Hydrochlorate ..	1-4 gr. .. (54)	Morphine Sulphate ..	1-8 gr. .. (11)
Codine Phosphate ..	1-4 gr. .. (44)	Atropine Sulphate ..	1-200 gr. .. (10)
Colebain ..	1-100 gr. .. (45)	Morphine Sulphate ..	1-6 gr. .. (9)
*Cornutin Hydrochloride ..	1-60 gr. .. (53)	Atropine Sulphate ..	1-180 gr. .. (8)
Curare ..	1-12 gr. .. (48)	*Morphine Sulphate ..	1-100 gr. .. (7)
Digitalin, Crystalline ..	1-100 gr. .. (30)	Pilocarpine Hydrochlorate ..	1-10 gr. .. (34)
Ergotinin Citrate ..	1-100 gr. .. (37)	Pilocarpine Hydrochlorate ..	1-6 gr. .. (64)
Ergotinin Citrate ..	1-200 gr. .. (38)	*Pilocarpine Hydrochlorate ..	1-3 gr. .. (33)
Eserine Salicylate ..	1-100 gr. .. (39)	*Quinine Hydrobromate ..	1-2 gr. .. (42)
Homatropine Hydrochlorate ..	1-250 gr. .. (47)	*Sclerotinic Acid ..	1-2 gr. .. (21)
Hydrarg. Pereblor... ..	1-30 gr. .. (28)	*Sclerotinic Acid ..	1 gr. .. (20)
Hydrarg. Pereblor... ..	1-30 gr. .. (28)	*Spartine Sulphate ..	1-2 gr. .. (56)
Hyoseine Hydrobromate ..	1-200 gr. .. (48)	Strophanthin ..	1-500 gr. .. (52)
*Hyoseine Hydrobromate ..	1-75 gr. .. (43)	Styrbaine Sulphate ..	1-150 gr. .. (18)
*Hyoseyamine Sulphate ..	1-80 gr. .. (31)	Styrbaine Sulphate ..	1-100 gr. .. (17)
*Hyoseyamine Sulphate ..	1-20 gr. .. (41)	Styrbaine Sulphate ..	1-60 gr. .. (16)
Morphine Bi-Meconate ..	1-8 gr. .. (27)		
Morphine Bi-Meconate ..	1-6 gr. .. (26)		
Morphine Bi-Meconate ..	1-4 gr. .. (25)		
Morphine Bi-Meconate ..	1-3 gr. .. (24)		

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The "BRITISH MEDICAL JOURNAL," reporting upon these Plasters, says:—"There is probably no more valuable remedy as a local anæsthetic than Menthol. It is as prompt in its action as aconitine, and is free from danger. Menthol can now be obtained in the form of a plaster. The anæsthetic action is in this way maintained for days, giving prompt and permanent relief in pains of various kinds, such as migrim, lumbago, pleurodynia, myalgia, and intercostal neuralgia. We have tried it in several cases, and find it answers admirably."

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AS AN OFFICIAL JOURNAL

THE CHEMIST AND DRUGGIST is supplied regularly to every member of the following Societies:—PHARMACEUTICAL SOCIETY OF IRELAND, SOUTH AFRICAN PHARMACEUTICAL ASSOCIATION, MIDLAND PHARMACEUTICAL ASSOCIATION OF NEW ZEALAND, CENTRAL ASSOCIATION OF NEW ZEALAND, OTAGO PHARMACEUTICAL ASSOCIATION, PHARMACEUTICAL SOCIETY OF QUEENSLAND, PHARMACEUTICAL SOCIETY OF SOUTH AUSTRALIA, PHARMACEUTICAL SOCIETY OF WESTERN AUSTRALIA, and TASMANIAN PHARMACEUTICAL SOCIETY.

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PLEASE NOTE

that, next week being Easter week, THE CHEMIST AND DRUGGIST will be closed for press on Wednesday instead of Thursday evening. Advertisements for the Supplement cannot be received after 5 P.M. on Wednesday next. All other communications should reach us as early in the week as possible.

FOR DISTRIBUTING CIRCULARS.

THE *Pharmaceutical Record* (New York), commenting on our issue of January 28, says:—"Our bulky contemporary THE CHEMIST AND DRUGGIST of London has surpassed itself in point of weight and attractiveness in the special 'Winter Issue.' The issue, although it comprises the regular weekly edition, weighs a little over 2½ lbs., and contains a number of supplements or inserts in colours, which represent really excellent productions of the engraver's and printer's art." There will be another opportunity for the exercise of similar artistic and effective designs in our Summer Issue, which will be published on the last Saturday of July. Advertisers should communicate early with the Publisher in order to secure good positions.

Summary.

WE report a very successful conference of chemists at Manchester, held on Wednesday.

A SLOANE STREET dentist has died from the inhalation of nitrous oxide, taken by himself in his own surgery.

A YOUNG woman has died in Glasgow from the effects of a 20-grain dose of podophyllin, bought at a doctor's shop in error for antipyrin.

THE DUNDEE CHEMISTS' ASSISTANTS' ASSOCIATION have ended their fourth session in financial difficulties, and with some indications of waning interest.

OUR Paris correspondent sends us particulars of the new Medical Act, which affects pharmacists in several respects and places the qualifications of dentists on a better footing.

A CHEMIST AND DRUGGIST interviewer has had a talk with Mr. S. M. Burroughs about his American trip, and we publish notes on the conversation, with a portrait of the interviewee.

At the meeting of the Chemical Society last week there were several communications from the Pharmaceutical Research Laboratory upon aldoximes, which were somewhat severely criticised.

WILLIAM RADAM, the microbe-killer man, has been sued, in America, by Dr. R. G. Eccles for libel. Dr. Eccles got \$6,000 damages, and succeeded in showing that Mr. Radam is very ignorant about microbes.

THE PHARMACEUTICAL SOCIETY have been defeated at the Ystrad County Court in an action against an ironmonger for the alleged sale of Fellows's syrup. An unsatisfactory witness was the occasion of their failure.

MR. SQUIRE contributes a note on the crystallisation which occurs in Easton's syrup, in which he states that his experience agrees with the view that an excess of phosphoric acid is the source of the trouble.

THE LIVERPOOL CHEMISTS' ASSOCIATION have had a discussion about the Pharmaceutical Society, and blessed it. The speakers were prepared to sacrifice the widows' clause so as to get the principle of qualified ownership again established.

PROCEEDINGS under the Sale of Food and Drugs Act in respect of liquorice have been taken at Liverpool. The Magistrate appeared to hold that a confectioner may sell liquorice which it would be an offence against the Act for a chemist to sell.

THE Chancellor of the Exchequer has given a very decided reply in the House of Commons, declining to admit the right of unlicensed persons to make or sell such compounds as ginger-wine essence if they contain more than 3 per cent. of proof spirit.

SIR JOHN LUBBOCK has again spoken in the House of Commons on short hours in shops, and proposed a resolution for legislation in that direction. He received support from influential members in all parts of the House, and carried his resolution, thus leaving the question upon a higher platform than it has ever reached before.

It appears from the report of the Medical Council Registrar that there was a big falling-off in the number of students entering the medical profession last year. We refer to the matter in our editorial columns, and add some particulars regarding the more popular medical schools and how pharmacy students have transferred themselves to medicine.

THE Dublin public analyst, Sir Charles Cameron, having certified that the milk supplied to the South Dublin Union was adulterated, twelve contractors were summoned. Sir Charles Cameron having admitted that the analyses were made by his assistants, though he signed the certificates, the cases were all dismissed, and 30s. costs allowed in each case.

English News.

The Editor is obliged to correspondents who send local newspapers containing items of interest to the trade. He will be further obliged if such paragraphs be marked in all cases.

Drug-contracts.

The West Ham Town Council have received tenders from the Sanitas Company. Messrs. McDougall, J. Byford, A. Webster & Co., and J. Anson & Co. for the supply of disinfectants, &c.

The Mile End Board of Guardians have accepted the tender of Mr. Baiss for the supply of drugs to the Union. The value of the contract is 564*l*.

The Hampstead Board of Guardians have decided not to advertise for the supply of drugs, but to continue to obtain them from Messrs. Corbyn & Co.

The St. Pancras Board of Guardians have received the following tenders for the supply of drugs:—Messrs. Hodgkinson, Prestons & King, 820*l*. 1*s*. 11*d*.; Messrs. Burgoyne, Burbridges & Co., 829*l*. 19*s*. 2½*d*.; Messrs. Corbyn, Stacey & Co., 850*l*. 1*s*.; Messrs. A. S. Hill & Sons, 862*l*. 16*s*.; Messrs. Wright, Layman & Umney, 911*l*. 10*s*. 7*d*.; Mr. W. H. Lyon, 1,109*l*. 15*s*. 0½*d*. The Board accepted the tender of Messrs. Hodgkinson, Prestons & King. For the supply of medical and surgical appliances the Board have accepted the tender of Messrs. S. Maw, Son & Thompson, the contract-time being twelve months.

The Shepton Mallet Board of Guardians have accepted the contract of Mr. Philip Griffith for the supply of cod-liver oil, quinine, trusses, and bandages for the ensuing year.

Mr. Sanders, Ilminster, has secured the contract for cod-liver oil, quinine, and trusses for the Chard and Crewkerne Unions.

Messrs. Pumphrey & Son have obtained the contract for drugs for Evesham.

The Leicester Board of Guardians have appointed Messrs. J. Richardson & Co., of Leicester (Limited), druggists to the Board for the ensuing quarter.

The Dartford Board of Guardians have accepted the tender of Mr. W. T. Tucker, chemist, Spital Street, Dartford, for the supply of cod-liver oil to the Union for the ensuing quarter. They have also accepted the tender of Messrs. Horrell & Goff, chemists, 34 and 36 High Street, Dartford, for the supply of drugs for the infirmary for 15*l*. for six months.

The Sheffield Guardians have been in the habit of sending out lists of the drugs they required, and have invited members of the trade to tender for them. For the ensuing half-quarter they sent out a wholesale list, and asked chemists and druggists what discounts they would allow from it. Several tenders were sent in, and the contract went to Mr. A. W. Graham, West Bar, Sheffield.

The Taunton Union have accepted a tender from Messrs. Gregory & Wreun, for single trusses at 3*d*., double trusses at 9*d*., cod-liver oil at 1½*d*. per half-pint, and waterproof sheeting at 3*s*. 6*d*. per yard.

Football.

The Sheffield College of Pharmacy (Greaves & Turner) played a team from the Sheffield Medical School on March 15. During the first half of the game the Chemists more than held their own; but "luck" went against them, and the teams crossed over without either side scoring. In the second half the superior training of the Medicals showed itself, and they scored three goals. It was admitted, however, that they had the best of the luck all through. Campsall and Peat at back, and Robinson at half-back, played well for the College.

The "Major" and the "Minor" students of the Northern School of Pharmacy, Manchester, played a close game of football on Saturday last, March 18. The first half of the game was very even, but in the second half the Minors got the best of it and ultimately won by two goals to one.

Patent Law.

The Liverpool section of the Society of Chemical Industry met specially last week to nominate three members to serve

on the committee to deal with the revision of the patent law. Mr. W. P. Thompson, in introducing the subject for discussion, said he was of opinion that preliminary examination had so far proved a failure. The great fault at the present time was the enormous cost involved in contesting the right of a patent. He had fought a patent in Germany which cost 24*l*., whilst in England the costs amounted to a little over 6,000*l*.; and he believed that they got more justice in Germany. In that country there was a Patent Court, consisting of a number of scientific men, who were allowed to add one or two to their number and to call in experts. He contended that more fraud had been caused by provisional specification and the right to alter it than anything else since 1852. After some discussion, Messrs. Henry Brunner, Henry Deacon, and W. P. Thompson were appointed to serve on the committee.

The Nottingham section have appointed Sir John Turney and Messrs. J. B. Allott and F. J. R. Carulla members of the committee.

A Carbolic-acid Bath.

At the Winchester Assizes, on March 16, Mr. Justice Mathew heard the charge of manslaughter against Robert John Lane, a porter, of Lymington Union, who was accused of pouring carbolic acid over a boy, aged 11, in a bath. The boy died from the effects of the burns. After hearing the evidence, the Judge said the people in Unions must be taught to control their temper, and sentenced Lane to twelve months' imprisonment.

Alleged Embezzlement.

John Marshall, a chemist, was charged before Mr. Denman, at the South-Western Police Court, on Saturday, with embezzling money belonging to his employer, Sidney Grover, chemist, 3 Croxted Road, West Dulwich. Mr. George F. Bell defended. The prosecutor employed the prisoner in November last to manage a branch business at 7 Carlton Terrace, Lower Tooting. In consequence of the takings falling off he got two men to visit the Tooting shop and make purchases. The books were subsequently examined, and according to the prosecutor's statement the prisoner's entries showed that he had neglected to account for all the money received from the two men.

Replying to Mr. Bell, the prosecutor stated that he offered to sell the business to the prisoner, but the negotiations fell through. He was not in want of money, but admitted, on being pressed, that a distress was put in for rent, and that his gas was cut off because of the absence of the manager. He put the business in the market a month ago, as it had not been paying.

Mr. Bell: What were you asking for a business which was not paying?

Witness: 160*l*., or offers. The stock was worth 80*l*. or 100*l*.

Mr. Bell: Do you swear that?

The witness replied in the affirmative, and, in answer to other questions, denied that the prisoner had authority to purchase things out of cash when the stock fell short of anything. His instructions were to go to Mr. Arsdon, a grocer, who sold patent medicines a few doors off, and who would book things to him when necessary.

Mr. Bell: You sent the men to trap the prisoner?

Witness: Yes; they were friends of mine, local tradesmen. I did not ask for any explanation before charging him.

Mr. Bell said the money was spent in purchasing articles for stock. He asked one of the men if it was his first attempt at detective-work. He laughed and said, "It is not detective-work."

Mr. Denman granted a remand, and allowed bail.

The case was heard again on Tuesday, when Mr. Denman committed the prisoner for trial and allowed bail.

Obliging a Tradesman.

At the Stowmarket County Court on Friday last, before Judge Wilmot, George James Gostling, chemist, of Stowmarket, sued David Pulford, warehouseman, Sheffield, to recover the sum of 3*s*. 3*d*. for 3 gallons of benzoline supplied in January, 1891. The defendant, on being asked if he owed the money, said he would rather the plaintiff proved the sale of the goods. This was done, the goods having been sup-

plied to the defendant when he, as a neighbouring tradesman, had run out of stock. Plaintiff had applied for a settlement five times without success. The defendant proceeded to question the plaintiff, and at length the latter appealed to his Honour for protection. He alleged that defendant was browbeating him, and that he was far from well, having only just got up after an attack of influenza. His Honour said the plaintiff had done quite right in endeavouring to recover his debt in the county court, and the defendant had not up to that time denied owing the amount claimed. If people would not pay, they must be county-courted. The defendant said he might as well admit that he had received the goods, but he objected to the plaintiff's proceedings. On February 11 the plaintiff sent for the money, and informed him that if it was not paid then and there proceedings would be taken in the county court. The defendant sent word back that he would look into the matter, and if correct he would pay it. A few days afterwards he was served with a summons for the paltry amount of 3s. 3d., and he alleged that plaintiff told everyone that he had county-courted witness; consequently his name was in every publichouse and pot-shop. Judgment was given for the plaintiff.

"The Proper School."

That was the title of a song at a smoking-concert of the City School of Chemistry and Pharmacy Students which was held in the Court Restaurant on Thursday, March 16. "The Welsh School," some people call it, because so many Welshmen go there. That also was evident from the flow of song. The proceedings of the two hundred smokers were so hearty that the affair was done in sections by two members of our staff. The first heard the speech of the Chairman, Mr. W. Bowen Rowlands, Q.C., M.P., who was supported by the Right Hon. Lord Wallscourt and other distinguished visitors. After the distribution of certificates, the Chairman, in the course of his remarks, said he was much pleased, on looking over the records of the School before him, to observe the rapid strides it had made during the twelve or thirteen years of its existence, over 120 pupils being at present on the books. (Cheers.) He contrasted the extended knowledge of pharmacists of the present day with the limited amount possessed by the alchemists of bygone ages, attributing it to modern cultivation of the arts, sciences, and of all those things which tended so much to promote the happiness of the human race, at the same time alluding to the enormous strides made in pharmaceutical research and chemical discovery during the last decade. Before leaving the House of Commons, Mr. Rowlands had been charged, he said, with a message from T. E. Ellis, Esq., M.P., Junior Lord of the Treasury, expressing keen regret at his inability to be present. Continuing, the Chairman said he was very much struck with the motto of the School, "*Celer et Certus*" ("Swift and Sure"). He did not know whether it was peculiar to the School; but considered it an excellent modification of the old motto, "*Slow and Sure*." The programme, which was a lengthy one, was then proceeded with. There were eight toasts to throw in between the songs, and the chorus-list bore the announcement:—"Gentlemen are politely requested not to drink during any of the songs, an ample opportunity being afforded in responding to the toasts at intervals during the evening." Reporter No. 1 says this injunction was strictly honoured; No. 2 adds, "in the breach"; but he dropped in late, when everybody told him, "You should have heard 'The Proper School.' The chorus went this way:—

Oh! come to the City School,
For there it is the rule
To do the work, and nothing shirk,
And pass the Minor cruel.

"You'll come to the next one, though, won't you? You can bring your girl." "Thank you, and she'll be told how to 'wink the other eye at the man who broke the bank at Monte Carlo,' as Mr. Parkes is telling us just now." An explanation ensued. The next concert is to be a cigarette one; ladies will be admitted, and the proceeds will be given to the Benevolent Fund. So Mr. Williams announced from the chair after Mr. Rowlands had returned to "The House."

Libelling a Chemical-workers' Organiser.

In the Nisi Prius Court at the Liverpool Assizes on March 26, Mr. J. P. King, secretary and organiser of the Chemical and Copper-workers' Union, obtained a verdict for 100*l.* against Mr. Swarbrick, editor and proprietor of the *St. Helens Chronicle*, for libel in a passage in which he was called a liar and a perjurer.

"Bengal Saltpetre" (KClO₃).

There was an explosion at Brock's firework-factory, South Norwood, last week, and William F. Tate, a boy of 16, was killed. The victim was charging drain-testers when the explosion took place. The effect of the explosion was terrific, to put it briefly, and deceased was burned to death. The inquest revealed the facts that the "saltpetre" which Tate had been using in the composition with which he was filling the drain-testers had been taken from a small barrel labelled "Bengal Saltpetre." A part of the word "Bengal" was obliterated, but the other word was intact. On the bottom of the barrel were the letters "D. Y.," which meant Daniel Yates, who is a wholesale druggist and drysalter at Blackburn, Lancs. Mr. Arthur Brock tested the stuff, and found that instead of being saltpetre it was chlorate of potash, and this, no doubt, was the cause of the explosion. Colonel Majendie, her Majesty's Chief Inspector of Explosives, stated that he took samples of the material from the barrel, and Dr. Duprè discovered that it was chlorate of potash. It differed sensibly from ordinary chlorate of potash, being very much coarser, but it did not differ materially in resemblance from Bengal saltpetre. Mr. Brock said he was surprised that a dozen men were not killed through using the composition. The jury in the course of their verdict stated that they were "of opinion that Mr. Yates negligently forwarded a keg of chlorate of potash instead of saltpetre, and so contributed to the accident." They exonerated Messrs. Brock & Co. from blame.

[Mr. Yates has written to say that he had no notice of the accident or the inquest, and had been aware that he was concerned in the matter at all he could have proved that Messrs. Brock bought chlorate of potash, that that was invoiced and paid for, and that he has never in his life sold saltpetre to Messrs. Brock.]

The Druggist not to Blame.

An inquest was held at the Royal Berks Hospital, Reading, on Monday last, on the body of Henry Holliday, who died on the previous Saturday, after an operation for extravasation of urine. Charles Henry Holliday, the son of the deceased, said his father had suffered from piles and stricture. On the previous Wednesday a neighbour told him he was quite right in intending to go to Mr. Brett, chemist, Oxford Road, but he got worse and did not go that day. The neighbour sent to Mr. Brett to say what was the matter, and some medicine was sent. He then went to see his father, and advised his seeing a doctor, but deceased told him to see Mr. Brett and tell him just how he was. Mr. Brett advised a doctor being called in. Deceased still declined to see one. Deceased saw Mr. Brett on Friday, and the latter advised a doctor being called in. Dr. Richardson went into the case, and ordered deceased to the hospital. A letter to the Coroner from Mr. Brett was read agreeing with the statement made by the first witness. The jury did not attach any blame to Mr. Brett, and returned a verdict in accordance with the medical evidence.

Poisoned by Nitrous-oxide Gas

At Chelsea, on Monday last, an inquiry was held concerning the death of Thomas Samuel Minett (40), dentist, of Sloane Street, who was found dead in his surgery on Tuesday last. Elizabeth Sullivan, servant to the deceased, said that she saw him about 2 o'clock on Tuesday, when she admitted a lady. About 5 o'clock a gentleman called, and, receiving no answer to her knock, witness entered the deceased's room, and found him sitting in the chair with his mouth covered with the gas-machine. He was dead. Dr. Brown said he found life extinct. The body was warm, and the ears and lips were livid, and the finger-nails blue, which were the symptoms one would find from the inhalation of nitrous-oxide gas. He examined the apparatus, and found no gas in the bottle. The valve was

closed, so that the deceased must have been inhaling the gas without air. There were no signs of a struggle in the room. The jury returned a verdict "That the deceased died from asphyxia, from inhalation of nitrous-oxide gas, and that such death was due to misadventure."

Fire.

A fire caused by "vapour of spirit coming in contact with gas-light," occurred on Tuesday on the premises of Messrs. Harker, Stagg & Morgan, wholesale druggists, 15 Laurence Pountney Lane, E.C. The damage to property was principally confined to the still-room on the third floor, but an employé, named Harold Harris, aged 22 years, was much burned on the face and head, and had to be removed to a hospital.

Sudden Death of a Chemist.

An inquest was held at Portsmouth on Tuesday last on the body of Mr. George Baker, chemist and druggist, of 104 Queen Street, Portsea. Mr. Thomas B. Baker, chemist, of High Street, Cosham, stated that the deceased was his son, and had not been in good health of late. He had been plethoric, and complained of pains in his head. Mrs. Mary Ann Green, housekeeper to deceased, said that on Sunday evening last she went to church, leaving deceased in the parlour, and when she returned he had gone to bed. About 9 o'clock she took him up his supper, when he was lying in the bed dressed, and said he was very comfortable. At half-past 8 o'clock on Monday morning she called him outside of his door, and no answer being returned she became alarmed, and sent for the police. P.C. Moore came, and on forcing the door open found the deceased lying in bed in the same position as when she saw him overnight, but quite dead. There was no sign of any drug about the room. Dr. T. A. Colt deposed that he was called to see deceased about 9 o'clock on Monday morning. He thought that he had been dead five or six hours. He attributed death to congestion of the brain, due to natural causes, but accelerated by the tight collar round deceased's neck. The jury returned a verdict of death from natural causes.

An Assistant's Claim.

At the Malvern County Court, on March 17, before Sir Richard Harrington Llewellyn, Lloyd Thomas, of Malvern Link, sought to recover from John Brew, manager of the Patent Medicine and Drug Stores, Malvern, 5*l.* 19*s.* for wages, in lieu of a month's notice, less a week's pay, which was paid into court by defendant, and 4*l.* damages. Mr. S. G. N. Spofforth appeared for the plaintiff, and Mr. Roberts for defendant. Damage and loss were alleged to have been sustained by the plaintiff in removing his effects from Eckington to Malvern at the request of defendant, and for journeys to Malvern. The defendant paid into court 1*l.* 15*s.*, the amount of a week's wages, less 7*s.* deducted for rent of lodgings, and counter-claimed for 3*l.* for alleged breach of contract by the plaintiff wrongfully refusing to continue working. Plaintiff was engaged by defendant at a salary of 35*s.* per week and use of three rooms (reckoned as equivalent to 7*s.* per week). His duties were to take charge of the Stores during the absence of the defendant. In January he received a month's notice, and on February 11 a dispute arose between him and defendant as to a desk in the shop belonging to the latter, which defendant said someone had been meddling with. Plaintiff was annoyed, and said that if defendant would not keep the desk locked he would not be responsible for the care of the Stores, and handed defendant the keys which had been entrusted to him. For this he was summarily dismissed. His Honour looked upon plaintiff's conduct as a direct refusal to perform his duties, and gave judgment for the defendant. The counter-claim was withdrawn.

Irish News.

L Belfast Laudanum.

A correspondent of a medical weekly calls attention to the extreme laxity with which the law is enforced relating to the sale of poisons in Belfast. Laudanum can be purchased in any quantities at 3*d.* an ounce, and is regarded as a

household remedy. The cheapness has suggested to the correspondent that the common preparation is deficient either in spirit or in opium.

Examination Announcements.

An examination for the qualification of assistants to pharmaceutical chemists is to be held at Dublin on Wednesday, April 12. Applications should be lodged with the Registrar not later than March 29.

An examination for the licence to act as a registered druggist is to be held at Dublin on Thursday, April 13. Applications should be lodged with the Registrar not later than March 30.

A registered druggist examination is intended to be also held at Belfast (if twelve apply) on Tuesday, April 18. Applications should be lodged with the Registrar not later than April 4.

Potass. Iodid. Derelict.

Over half a hundredweight of potassii iodid. is at present lying in a public auction-room in Dublin in five pottle bottles, bearing the label of a Scottish chemical company. It is slightly discoloured.

Drug-contracts and Analysts.

A case of much interest to drug-contractors and analysts will shortly come before the public and will, it is said, not only engage the active attention of the Local Government Board of Ireland, but may become the subject of Parliamentary inquiry.

A Bank Holiday Treat.

Owing to the delays caused by the Privy Council in approving of the change of date of the Pharmaceutical Preliminary examination from Easter Monday to next day, Tuesday, the examination must take place on April 3. The resolution of the Council changing the date was passed at the January meeting of that body, and immediately forwarded for approval to the Privy Council, who replied, after three weeks' delay, that the Solicitor-General was of opinion that it would be well to embody the possible recurrence of similar occasions in the resolution. This was accordingly done at the February meeting and forwarded to the Privy Council. No reply having been received up to March 17, the application for approval was repeated, with the result that a reply was received stating "that it is not probable it can be approved of within the time." Good old red tape!

Public Analysts must Make the Analyses Themselves.

Twelve summonses against milk-contractors to the South Dublin Union for selling adulterated milk were heard before the Dublin Police Magistrate on Friday, April 10, when the public analyst (Sir Charles Cameron) was subpoenaed by the defendants, and admitted that though he had signed the certificates on which the prosecutions were based, he did not personally conduct the analyses, which were carried out by his assistants.

The Magistrate thereupon remanded the cases until March 16, when Mr. McSheehy, who represented the Public Health Department, withdrew the summonses, as the analyses were admittedly not conducted by the proper person, the Public Health Officer of the Dublin Corporation, Sir Charles Cameron.

The Police Magistrate allowed 30*s.* costs against the Corporation in each of the summonses, amounting in all to 18*l.*

Medicine-contracts.

Tenders are invited by the Boards of Guardians of the undermentioned Poor-law Unions, and will be considered on the appended dates:—Strabane, March 23; Manorhamilton, March 30; Athlone, April 1; Mitchelstown, April 6.

Scotch News.

An Overdose of Podophyllin.

On March 13 a young married woman named Mrs. Howie, staying at 14 Bankhall Street, Glasgow, died from an over-

dose of podophyllin. She had been suffering from neuralgia, and a friend advised her to try 2*d.* worth of antipyrin powder. Unfortunately, she forgot the name of the powder, and on the next recurrence of the attack, on Saturday, March 11, it was podophyllin, instead of antipyrin powder, that was sent for to the shop of Dr. Samuel Clark, 324 Rutherglen Road. Mrs. Howie took 20 grains of the powder, became ill almost immediately, and died within thirty-two hours.

French Pharmaceutical News.

(From our Paris Correspondent.)

COMPLIMENT TO SIR H. E. ROSCOE.—At the meeting of the Academy of Sciences on Monday, Professor Sir Henry Enfield Roscoe, M.P., V.P.R.S., D.C.L., LL.D., was elected a corresponding member (section of chemistry) by twenty-eight votes against seventeen given to Signor Cannizzaro, of Rome.

M. ADRIAN, the well known chemist and manufacturer of pharmaceutical products, has been nominated president of the Syndical Chamber of Chemical Manufacturers. This association is one of the most important of its kind in Paris, and its presidency is consequently a somewhat coveted honour. Prior to M. Adrian only two pharmacists have occupied the position.

PHARMACY AT CHICAGO.—The American Pharmaceutical Association has issued a circular to French pharmacists inviting them to nominate delegates for the International Pharmaceutical Congress to be held in Chicago during the Exhibition. The circular refers to the fact that at the Congress held in St. Petersburg in 1874, an invitation was given to hold the fourth re-union at Philadelphia in 1876, but the offer was not accepted.

MEDALS FOR PHARMACISTS.—In the mention of the New Year decorations made in *THE CHEMIST AND DRUGGIST* of January 7, it was perhaps an injustice to say that the services of pharmacists in connection with the last cholera epidemic have passed unrecognised. In any case the matter has now been set right. Ten pharmacists have recently been awarded medals for devotion during the cholera epidemic of 1892. Two of these, M. Gattiker of the Havre New Hospital, and M. Léfrouzé of Monville, have received silver medals, while the remainder get bronze decorations.

MEDICAMENTS AGAINST THE ABUSE OF OPIUM.—At the Academy of Medicine last week, Dr. Ernest Martin, formerly Physician to the French Legation at Peking, submitted the result of his physiological researches on this narcotic, also his experiences with opium eaters and smokers. In speaking of the medicaments against the abuse of opium, Dr. Martin states that a great number have been tried in China. Opium-eaters, he says, can generally manage to modify their passion, and even overcome it. For this, the process most in use in Oriental countries is to mix a dose of wax with the opium pill. The proportion of wax is gradually increased until the opium is entirely omitted. The great extent to which coffee is consumed by Mussulmans is considered a useful auxiliary as a preservative against the poisonous effects of the narcotic. Smokers who wish to overcome their passion use granules of hydrochlorate of morphia containing from three to four centigrammes. These granules are generally imported from England. They have a red tinge, and about twenty are necessary to replace from forty to forty-five pipes. The granules are taken in decreasing numbers, and the examples of success are by no means rare. Dr. Martin repeated in substance a good deal of what was recently said by M. Henri Moissan at the Academy of Sciences, and referred to in *THE CHEMIST AND DRUGGIST* of December 10 last. Both these authorities are of opinion that the great evil of opium smoking consists in the use of bad qualities as in the case of alcohol. Dr. Martin suggests a government control as the best means of checking the sale of adulterated opium, but he considers that the supervision would be exceedingly difficult.

THE NEW FRENCH MEDICAL LAW is beginning to be better understood, and it is worth while again drawing atten-

tion to the matter in connection with one or two sections of interest to pharmacists. Article 11, for instance, allows a limitation of two years to doctors and pharmacists alike, during which they are entitled to recover debts as against one year only under the old law. The curious anomaly of giving doctors and pharmacists a privileged claim on an estate, only if the creditor had succumbed under the treatment, is removed by Article 12, which gives them a preference in case of a patient's bankruptcy after recovering from an illness. By Article 16, pharmacists incur less risk of vexatious prosecutions for illegal practice of medicine. Thus it will be possible to supply medicine for a slight ailment without a prescription in emergency, but such must not be done habitually, nor may a pharmacist prescribe for a patient continuously. Another important article has been the creation of a new diploma of surgeon-dentist. Until now far too much liberty has been allowed in France with regard to the practice of the dental art. An eminent member of the profession, Dr. J. H. Spaulding, explained to the representative of *THE CHEMIST AND DRUGGIST* a few days ago that some sort of guarantee to the public was necessary in France, especially in view of the delicate operations now performed, and the ever-increasing use of anaesthetics. Pharmacists will no longer be able to extract teeth without risking a fine of from 50*f.* to 100*f.*, which may be increased to 500*f.* in case of a second offence. In connection with dentistry, it is interesting to note that really competent judges have stated that out of the hundreds of men styling themselves dentists in Paris, barely twelve are really competent to do thoroughly good work—many of them are unacquainted with the first elements of the art. The dental schools, too, are said to be badly organised, the teaching is often indifferent, and pupils are accorded diplomas after a very elementary training.

Foreign and Colonial News.

A NEW YORK PHARMACIST'S FAILURE.—A. J. Ditman, the Astor House pharmacist, has failed, and his affairs appear to be much confused. He was interested in several outside ventures, as "Bovinine" and "Trigestia."

A PHARMACEUTICAL EXHIBITION IN FRANKFORT.—A pharmaceutical exhibition will be held in Frankfort-on-the-Main on the occasion of the twenty-second annual congress of the German Apotheker Verein, to be held in that city in the course of the summer.

DUTY ON PHARMACEUTICAL PREPARATIONS IN COLOMBIA.—A bill has just been passed by the Congress of the United States of Colombia (South America), doubling the customs duties upon "all pharmaceutical specialities, including wines, gums, pills, pomades, elixirs, pastelles, &c., and all patented medicines. The increased duties do not apply to the department of Panama."

MINERAL WATERS IN BRAZIL.—A ministerial order has just been issued authorising the introduction into Brazil of mineral waters from the United States, Great Britain, France, and Austria-Hungary, and steps have been taken for the clearance in the Custom-houses of the Republic of mineral waters, or such as are thus termed, coming from the British Isles, United States of North America, France, and Austria-Hungary, whether natural or manufactured.

BUSINESS IN MADRAS.—Messrs. W. E. Smith & Co., chemists and druggists, have decided, in consequence of the large growth of their business, to erect more spacious premises opposite the old ones in Mount Road, Madras. The new buildings are to be of handsome design, built of red brick, with a frontage of 105 feet. Provision is to be made for an attractive window display, store-rooms, laboratory, bottle-store, aerated-water manufactory and photography room. We wish Messrs. Smith & Co. every success in the new home.

THE QUEENSLAND FLOODS.—The damage done by these floods far exceeds anything in the previous experience either of white men or blacks. A great number of chemists have

suffered very severely. In the principal street of the city, Queen Street, Mr. George Watkins, ex-President of the Pharmaceutical Society, had his place invaded by water and damaged to the extent of 1,000/. Mr. A. Martin was damaged to almost a similar amount; Mr. Moses Ward, who has recently resumed business, has suffered to the extent of 500/. In South Brisbane quite a large number of chemists must have been entirely flooded out.

ENGLISH PATENT MEDICINES IN TURKEY.—A communication has been received at the Board of Trade on the subject of the entry of English patent-medicines into Turkey. The communication contains a list of English patent-medicines, the entry of which into Turkey is alleged to have been prohibited since September 1891, on the ground that the contents of the medicines are not known to the Ottoman Customs. It is stated that certain similar medicines from the United States are allowed to enter Turkey upon their contents being made known to the authorities through the United States Legation, and it is suggested that the proprietors of any English proprietary medicines by adopting a similar course might further the sale of their goods in Turkey.

NEW YORK DRUGGISTS AND PATENT MEDICINES.—At the last meeting of the New York Board of Trade, Mr. Theo. Weicher, a member of the wholesale drug trade, submitted a set of resolutions, which were referred to the drug trade section and are likely to have provoked considerable discussion at the last meeting of that body which was to have taken place on March 16. They declare that the traffic in patent-medicines constitutes a growing menace to the public health and morals; and demand legislative measures toward securing an officially and legally recognised distinction between true and useful, and hurtful, or dangerous medicines. The Board are invited to declare in favour of the Southworth Bill, introduced into the Assembly of New York State at Albany on March 1, which provides for an inspection of proprietary medicines through the authority of the State Board of Health.

A MICROBE-KILLER'S WOES.—Mr. William Radam, of "Microbe-killer" fame, has just come a bad cropper in the American law courts. About four years ago there appeared in the *Druggists' Circular* an article by Dr. Robert G. Eccles, giving what purported to be an analysis of the "Microbe-killer," and alleging that famous substance to consist substantially of the following ingredients:—

Impure sulphuric acid	4 drachms
Muriatic acid (impure)	1 drachm
Red wine, about	1 oz.
Impure hydrochloric water	1 gallon.

The cost of this compound, it was pointed out, was not more than 5c. per gallon (exclusive of the jar), and Mr. Radam's sale-price \$3. Mr. Radam subsequently wrote a letter to a St. Paul journal, in which he called Dr. Eccles a quack and a charlatan, and the latter thereupon took proceedings for libel against the microbe-killer. Dr. Eccles was formerly Dean and Professor of Chemistry in the Brooklyn College of Pharmacy, and one of the editors of the United States Pharmacopœia, and brought many eminent physicians and others to speak to his character. Mr. Radam, who employed the renowned Colonel Robert G. Ingersoll as his counsel, contended that he had called Dr. Eccles a quack in his capacity of a chemist, and not in that of a physician, and that his analysis of the microbe-killer was proof of his want of chemical knowledge. In cross-examination, says the *Oil, Paint, and Drug Reporter*, Mr. Radam admitted that he did not know the meaning of many of the names of diseases mentioned in his work on "Microbes and the Microbe-killer," that a part of the book was written by others, and was utterly unintelligible to him, and that he knew comparatively nothing of botany, and nothing whatever of natural history or of medicine. He declared that he did not care to know anything about these subjects. It was also shown that he had testified in a former case that "A microbe is simply impure air. Pure air is oxygen, impure air is nitrogen." A verdict was given for Dr. Eccles, with \$6,000 damages and costs against the defendant. Another suit, in which Mr. Radam claims \$200,000 damages against the *Druggists' Circular* for the insertion of Dr. Eccles' report, is expected to be heard shortly.

PARLIAMENTARY NEWS.

Ginger-wine Essence.

In the House of Commons on Monday, Mr. Robert Reid asked the Chancellor of the Exchequer on what grounds the Board of Inland Revenue required chemists who prepare and sell ginger-wine essence to hold a compounder's and a spirit-licence, when the essence is prepared from tinctures that can be sold separately as medicinal preparations, and when the essence only contains 10 per cent. spirit, and is unfit for drinking until diluted with 1 gallon of water, and then the percentage of spirit is less than $\frac{1}{4}$ per cent.; if he would consider whether the Board of Inland Revenue might allow the manufacture and sale of this article while containing 10 per cent. spirit, and the essence to be made and sold without a licence if it does not contain more than 3 per cent. spirit:

And, in case the Board of Inland Revenue is not prepared to grant either of these exemptions, is it intended to place equal restrictions on all flavouring essences wholly composed of pure spirit?

Sir William Harcourt: Potable essences containing so much as 10 per cent. of spirit cannot, with due regard to the safety of the Revenue, be allowed to be prepared and sold free of licence-duty. But when they contain not more than 3 per cent. they will not be interfered with. It is not thought necessary to interfere with the manufacture and sale of essences used for flavouring purposes only.

Unqualified "Doctors."

In the House of Commons on March 16, Mr. Bousfield asked the Secretary of State for the Home Department whether he was aware that large numbers of unqualified persons habitually practised as medical men or apothecaries, or assistants thereof, in London and other populous places: whether the only power of preventing such persons from so practising was vested in the Society of Apothecaries under the Act 55 Geo. III., c. 194, except in cases where such persons used titles prohibited by the Medical Act, 1858; whether the Society of Apothecaries had ceased to use their powers under their Act for many years; and whether he was prepared to consider the advisability of conferring powers similar to those possessed by the Society of Apothecaries upon the General Medical Council, or whether he could suggest any other method of checking such unqualified practitioners.

Mr. Asquith: I am not aware of, neither have I the means of ascertaining the extent to which unqualified persons habitually practise as medical men, or apothecaries, or assistants thereof in London and other populous places. The only power of preventing such persons from so practising is vested in the Society of Apothecaries, and that only so far as practice as an apothecary is concerned. I am informed that the Society of Apothecaries have not ceased to use the powers conferred upon them by their Act. I am not prepared to propose legislation on the subject.

Mr. Bousfield: Can the right hon. gentleman say when the Society of Apothecaries last exercised this power?

Mr. Asquith: I must ask for notice of that question.

The Chemists at Somerset House.

In the House of Commons, on Tuesday, Mr. Egerton asked the Chancellor of the Exchequer whether Dr. Bell and Mr. Bannister, the chief and assistant chemists at Somerset House, had resigned; whether it was true that the post of chief chemist at Somerset House had been offered to Professor W. Noel Hartley, and what his qualification was as an analytical chemist; and whether the right hon. gentleman would, before filling up the appointment, consider the advisability of appointing a person who had had practical experience as an analytical chemist.

Mr. Hanbury: Before the right hon. gentleman answers that question, I should like to ask whether the chemists who are said to have resigned did not fail to detect extensive frauds which were committed upon the Custom House, whereby a large quantity of denatured tobacco, on which a rebate of 3s. 3d. per lb. had been allowed, and which had been delivered to hop-growers to be used for blight in hops, was

purchased for those hop-growers by certain German traders, and mixed by them with other refuse tobacco, on which they succeeded in obtaining another rebate of 3s. 3d. Is it not the fact that this extensive fraud escaped the notice of the Inland Revenue Department chemists, and was only detected by the chemists in another department, who are not expected to analyse articles which have been passed as genuine?

Sir William Harcourt: I do not know how the hon. member expects me to answer such a question as that without notice. With reference to the question on the paper, I think it is a pity that hon. gentlemen who put questions of this kind do not take the pains to ascertain the facts. (Hear, hear.) The answer to the original question, upon which this extraordinary supplementary question has followed, is that neither Dr. Bell nor Mr. Bannister has resigned, and that the post referred to has not been offered to Professor Hartley.

Mr. Egerton: I wish to ask whether it is not competent for a member of this House, when he sees a statement in the public press, to ask a public officer whether it is or is not accurate? (Hear, hear.)

Mr. Hanbury: I wish to say that on the report of the vote for the Inland Revenue Department I shall call attention to this matter.

The Speaker: In reply to the point which has been put to me as to whether such a question, based merely upon statements in the public papers, should be asked, I have always done my utmost to discourage such questions, and to ask hon. gentlemen to undertake responsibility for the statements involved in the questions they put. (Hear, hear.)

Hours of Labour in Shops.

In the House of Commons, on Tuesday night, Sir John Lubbock moved:—

That, in the opinion of this House, the excessive and unnecessarily long hours of labour in shops are injurious to the comfort, health, and wellbeing of all concerned; and that it is desirable to give to local authorities such powers as may be necessary to enable them to carry out the general wishes of the shopkeeping community with reference to the hours of closing.

He said the subject was of urgent importance, and yet it had been strangely neglected by statesmen. It was ignored in the Newcastle programme, and yet was surely far more important than several, if not most, of the proposals contained in it. (Hear, hear.) Even those who did not think that a legal eight hours for artisans was possible sympathised very much with their wish for shorter hours, but the unfortunate shop-assistants and the small shopkeepers were working more than twelve hours, in thousands of cases even over fourteen hours. He referred to the reports of the committees of that House which had taken evidence on shop-hours in 1886 and last year. The committee of 1886 had reported that "in many districts the shops are kept open until very late, especially on Saturdays," and that "the hours of labour in shops in many districts range as high as eighty-five per week." They also considered that little could be expected from voluntary action, and that nothing short of legislation would be sufficient. When the Factory Acts were proposed their supporters were never expected to prove that manufacturers themselves were in their favour. But in this instance the shopkeepers themselves were in favour of the legislation, which strengthened the case immensely. Sir J. Lubbock then went on to quote the testimony of eminent doctors and of all sections of clergymen in favour of legislation. He said the melancholy facts brought out by the House of Commons' Committee showed that it was understating the case to call it slavery, for no slaves ever worked or could be worked so long. Next he narrated the support his efforts had received from trades councils, from Factory Act inspectors, and from the shopkeepers themselves, and this last, he said, was the strongest part of his case. Strong testimony was laid before the committee from various parts of the country, that the great majority of shopkeepers were anxious for shorter hours and would welcome legislation on the subject. The editor of *THE CHEMIST AND DRUGGIST* came to him and asked why, in the former Bill, chemists were excluded. He replied that in his opinion he thought they stood on special grounds. The editor said he believed that the chemists would wish to be included, and he issued a special circular to the whole trade, the result of which was to show that a large majority were in favour of legislation,

of course with a provision for the usual night-hell in case of emergency. There was hardly a large town in the United Kingdom where the shopkeepers had not held meetings in support of earlier closing, and resolutions had been passed by trade associations, such as the Liverpool and District Provision Dealers' Association, the Reading Grocers' Association, the Dublin Purveyors' Association, and the Federation of Grocers' Associations of the United Kingdom. The last committee had reported that "a widespread desire has been expressed by grown-up persons employed in shops that in some way their labour should be limited by law, and your committee believe that employers are not indisposed to such limitation, provided it takes the form of a general early closing. The witnesses generally expressed their opinion that any regulation of retail trade would be practicable only by local authority, after having been set in motion by the traders themselves. Your committee have evidence that in many localities the desire of the great majority of shopkeepers to close early has been frustrated by the action of some few individuals." He therefore asked that local authorities should be empowered to carry out the wishes of the majority of shopkeepers. Circumstances and competition now enabled the minority, and often a very small minority, to keep the majority open—(hear, hear)—and legal powers were sought to enable the majority to keep the minority shut. To illustrate the necessity for legislation he gave the following illustration of what happened over and over again. In one district of London some years ago the drapers wished to close earlier, and they all agreed to do so. Two hundred and fifty shops closed. But a new man came. He opened a shop and kept open late, hoping to get all the late business. Very soon his neighbour opened too. Then another and another, until in a few weeks they were all open again, except the committee of the Association. The committee met, and passed a unanimous resolution that nothing short of legislation would shorten the hours. Thus one man kept these 250 shops open. This was no question of class against class, of shop-assistants against shopkeepers. On the contrary, the shopkeepers themselves were foremost in wishing to benefit their assistants by shortening the hours, and they asked Parliament to enable them to do so. This had no bearing on foreign competition. Under it all would be treated alike; the shops would do just as much business. (Hear, hear.) The only difference and the great advantage would be that, under early closing, the business now done between 8 and 10 would be done better between 6 and 8 o'clock. (Hear, hear.) The last two hours were the most trying to the shop-assistant. It was after the gas was lit that the air became hottest, driest, foulest, and most impure. (Hear, hear.) As to the small shopkeepers, it had been said that any early closing would place them at a disadvantage. But he would point out that early closing would really benefit them. There would be less time for shopping, and customers therefore would make their purchases nearer home, instead of going further to the larger shops.

Sir B. Maple: Do not all the larger shops now close early?

Sir J. Lubbock: Yes, it was perfectly true that the large shopkeepers closed earlier than the small shopkeepers. He knew there was a feeling that small shops employing no assistants should be excluded. That would be a point to be considered; but the smallest shops competed keenly with one another, and inquiry showed that they were anxious to be included. Let them consider what fourteen hours of work a day meant. Less than eight could not be reckoned for sleep, which only left two for dressing and undressing, for supper, and for going to and fro from the shop. This absorbed the whole twenty-four hours, and not a moment was left for self-improvement or amusement, for fresh air or family life, or for any of those occupations which dignified and ennobled life. (Hear, hear.) The whole country would gain if shop-assistants had greater opportunities for intellectual, moral, and spiritual improvement; and the cruel effect of the long hours was considerably increased by the fact that the unfortunate assistants had to stand the whole time. Without legislation there was little hope of shorter hours; the lives of shopmen and shopwomen would still be the same weary monotony of shop and bed, a life of drudgery and an early grave. If the resolution was passed they would have, on the contrary, a hope of brighter and happier days, of stronger health, and of longer lives. They had

suffered grievously and too long, and he beseeched the House to pass the resolution in the name of many a weary worker whose life was now one of constant weariness and almost incessant labour, who would be condemned, if they did nothing, to a life of suffering and an early grave, but on whom, if the House passed the resolution, they would throw a ray of light and hope. (Cheers.)

Mr. Bartley seconded the motion, and

Mr. Asquith, while expressly disclaiming anything like Government pressure, made a warmly sympathetic speech in favour of the motion.

Sir J. B. Maple opposed the resolution. He argued that voluntary effort was doing what was needed, and he said that local option might have the effect of closing the shops on one side of the street, and leaving them open on the other.

Speeches in support of the motion were made by Mr. Chamberlain. Mr. Stewart Wortley, Dr. Farquharson, Mr. John Burns. Mr. Corbett, Mr. Wootton-Isaacson, Mr. J. H. Wilson, and Mr. Field. and ultimately the motion was agreed to, with cheers.

The Winter Session.

CHEMICAL SOCIETY.

THERE was nothing of purely pharmaceutical interest at last week's meeting, except a somewhat warm reception to a number of papers from the Pharmaceutical Research Laboratory which, however, had nothing to do with pharmacy. The first paper read was by Mr. T. K. ROSE, of the Mint, on "The Limits of Accuracy of Gold Bullion Assay, and the Losses Incidental to it." We all know that gold is volatile in the general sense, so also is it in the chemical, and it was part of Mr. Rose's task to determine the amount of the volatility when the precious metal is alloyed with other metals. It seems that those alloys in which the buttons in the muffle assume a nearly spherical form show a minimum of volatility of the gold, and the volatility increases as the button becomes flatter, and is greatest in the case of a tellurium alloy. Hence the vapour tension of gold appears to decrease as the surface tension of the alloy increases. After Mr. Rose's paper, Professor ROBERTS AUSTEN paid some pretty compliments to his young colleague, and concluded with the remark that "Perhaps it wants an apology for bringing a paper on such an every-day subject before those of you whose chief interest is in the movements of the carbon atoms, but you will remember that during my years of office, some 80,000,000% sterling has passed through our department, and an error of 1 per cent. is of some practical importance." Professor ARMSTRONG took this as a personal challenge, and said he would return his friend's attack by another: "Would he tell them if Mr. Rose's results had not modified his views on the subject of pure gold, which he had put forward recently at the Royal Society, following in the footsteps of the most poetical of chemists, Mendeleeff!" But the metallurgical professor quietly assured the Society that his views had not been modified in the least, and the friendly spar terminated. Then followed a paper by Professor RAMSAY and Dr. JOHN SHIELDS on the "Boiling-point of Liquid Nitrous Oxide at Atmospheric Pressure, and on the Melting-point of Solid Nitrous Oxide." The authors have been able by means of Dewar's new jacketed vessels to handle the liquefied gas, and Professor RAMSAY gave the audience a demonstration of the filtration of the liquid and other phenomena incidental to the investigation. This over, the way was clear for Professor DUNSTAN, who tabled three papers—viz., "Isomerism of Aliphatic Aldoximes," by himself and Mr. T. S. Dymond; "Formic Aldoxime," by himself; "Properties of Alpha-benzal-doxime," by himself and Mr. C. M. Luxmore. It was round the first of these papers that the interest of the discussion centred. There has been a great deal of work done on the aldoximes and oximes by distinguished foreign chemists, but not much in this country. However, the discovery of crystalline modifications of acetaldoxime by Messrs. Dunstan and Dymond, and the publication of their experience of them in May last, have taken the Research Laboratory workers into a more comprehensive study of this class of bodies. To that the

principal workers now add some theorising on the stereochemical lines laid down by Hantzsch and Werner, who explain the isomerism of the oximes upon that abstract hypothesis. There is, however, a school of chemists who steadily resist the stereochemical hypothesis, and it turned out, after Professor Dunstan had done his best to support Hantzsch, that the Society experts were dead against him, and one after the other Dr. Kipping, Dr. Norman Collie, Professor Ramsay, and Professor Armstrong severely handled Professor Dunstan, and politely pooch-pooched his work—the last-named critic remarking that the results were *nil*. The whole affair looked as if the critics thought that the Pharmaceutical Research Laboratory should stick to pharmaceutical chemistry and leave erudite organic theories alone.

CHEMISTS' ASSISTANTS' ASSOCIATION.

THURSDAY, March 16, was devoted to the reading of short papers. The first of these was on

PIPERAZINE AND PHENOCOLL HYDROCHLORIDE.

By George Roe.

In consequence of the increasing demand for these remedies, it seemed that pharmacists should know something of their history and chemistry, and also their incompatibility under certain circumstances. Piperazine is $C_4H_{10}N_2$, and may be regarded as piperidine in which one CH_2 group is replaced by NH . Majert and Schmidt give the following characteristics:—The free base is a crystalline body, melting at 104° to 107° C., boiling at 140° to 145° C., soluble in water and alcohol, and has a distinctly alkaline reaction. It was prepared pure for the first time in 1890, by the action of potash on dinitroso-diphenyl piperazine. It is very hygroscopic, and absorbs CO_2 from the air. It forms an insoluble red compound with bismuth iodide. These two chemists have prepared a series of hydrates of the base. It forms a fairly soluble salt with uric acid. When dispensed by itself it presents no difficulties, as it is very soluble; but, being hygroscopic, it cannot be dispensed in powders. Its alkaline reaction renders it incompatible with alkaloids and salts of iron. Tannic acid gives a distinct cloudiness and green colour; alum gives a white precipitate; iron salts yield either dark colours or precipitates; inf. rosæ gives a blue colour; spirit. æther. nit. gives a red colour; with chloralhydrate it becomes liquid. The chief interest of piperazine is in its behaviour with phenocoll hydrochloride. Above certain strengths these are incompatible when in solution, and they are so in any strength in tap-water. A solution of the following strength will keep if made with distilled water; but if tap-water be used crystals are deposited:—

Piperazine	gr. iiss.
Phenocoll hyd.	gr. v.
Aq. dest.	3j.

Each salt should be dissolved in half the water, and the solutions mixed; if the salts be mixed dry and then treated with water it is almost impossible to dissolve them. Mr. Zimmermann had asked him why the addition of a little *tr. aurantii* to each of the solutions before mixing kept the mixture clear. He had, therefore, prepared mixtures containing about 10 grs. of piperazine and 15 of phenocoll hydrochloride to the ounce with a little spirit, tincture, or mucilage, and found that either of these kept the mixture almost clear. He was indebted to Mr. Zimmermann for the specimens he was able to show.

This was followed by a note on the same subject by Mr. E. H. GANE. It had reference to the deposition of crystals in piperazine and phenocoll-hydrochloride mixtures. Mr. Gane had undertaken experiments with the view of obtaining an explanation. Solutions of the same strength in distilled and in tap water were prepared and set aside. In a few hours crystals appeared to an equal extent in both solutions. This was repeated several times, varying the strength of the solutions, and in every case, except with very dilute solutions, crystals appeared in both cases, showing that the tap-water played no part in the decomposition. The crystals were separated, and found to be practically insoluble in cold but soluble in hot water. As piperazine is a strong base, and phenocoll hydrochloride a weak compound, it was

thought probable that the crystals were merely precipitated phenocoll. Subsequent experiments proved this to be case. The crystals were dried, and their melting-point taken. They were found to melt at 92.6° C., and when crystallised from alcohol at 93.5° . Pure phenocoll melts at 95° . The crystals gave all the reactions of phenocoll, and the solution gave those for piperazine and hydrochloric acid. The circumstance that Mr. Roe failed to obtain crystals in distilled water points rather to the fact that the substances were not actually pure, which is quite possible, considering the difficulty of manufacture. The precipitation is due merely to the alkaline action of the piperazine.

DISCUSSION.

The PRESIDENT (Mr. F. A. Rogers) thought that, of the specimens exhibited, the mixture dispensed with mucilage was the most elegant. Should these two bodies be administered in the form of an effervescing powder?

Mr. JONES said he had been called on lately to dispense piperazine in powders, and the physicians had often ordered them to be sent out in tubes. Of course, the use of spirit in the solutions was out of question unless specially ordered.

Mr. SAGE said his experience had been that of Mr. Roe—that there was a distinct difference in the use of tap and distilled water. Perhaps the effect of the mucilage Mr. Roe had used for keeping the mixture in solution was due to acidity, the mucilage having been kept a little time.

Mr. GANE, in reply, said he had repeated his experiments several times, using solutions of different strengths, and had invariably obtained identical results from both tap and distilled water. Had Messrs. Roe and Sage tested the chemicals before using them?

Mr. ROE said it was unfortunate that his own and Mr. Gane's experiments were not in accord. He had taken the chemicals as pure since they were in original bottles. He had dispensed gallons of the mixture, and had repeatedly obtained the results he had described. Perhaps Mr. Gane would continue his experiments, and try to come round to his view.

The next paper was

"VASELINE IN PRESCRIPTIONS."

By F. A. Rogers.

It is our duty to carry on business on strictly conscientious lines, and it is somewhat of a blow to be told we are guilty of "unauthorised substitution," either willingly or unwillingly. I am not a believer in the excuse "'tis the custom of the trade," but I do desire to help towards obtaining uniformity in the trade. Whilst acknowledging the position of the two authorities who have raised the question, I claim it to be a question on which each must have his own individual opinion. We acknowledge no authority outside the pages of the B.P., which can say what a given drug should be. But often the omission of definite expression leaves to the dispenser licence to use his own judgment to a degree. When a drug, perhaps under a fanciful name, has earned its reputation, and been admitted to the pages of the Pharmacopœia under an official name, he must acknowledge that the original article is of as great repute as the official article. This cannot be denied in the case of vaseline, and when the B.P. says that paraffinum molle may be of a white or yellowish variety, surely we are justified in assuming that vaseline may be dispensed in either form. Its composition is not altered in the process of bleaching. I maintain that it is entirely a case of the maintenance of elegance in pharmacy, and that the dispensing of, say, cocaine as an eye-ointment with yellow vaseline would be a breach of the rules of elegant pharmacy. Should we be called upon, however, to dispense a dark-coloured substance, I should certainly use the yellow variety; and since the two varieties are so nearly identical, it appears to me to be entirely a matter for the individual dispenser to judge whether he should use the yellow or the white.

Mr. GANE said that, since the Chesebrough Company labelled yellow vaseline "Vaseline," and the white variety as such, we should dispense yellow vaseline unless the white were distinctly ordered.

Mr. SAGE considered that the Pharmacopœia gave free licence to use either at discretion, but that, for the sake of uniformity, he should prefer to use the yellow unless white were ordered.

Mr. MARTIN said that his experience in the provinces had always been that yellow vaseline was expected by the patient when vaseline was ordered. Moreover, he was acquainted with several physicians who invariably ordered "white vaseline" when prescribing eye-ointments. Thus, for uniformity's sake, he should always dispense yellow unless ordered to the contrary.

Mr. GASKIN preferred to use white for all white powders, and yellow for coloured substances.

Short notes were read "On the Cost of Starting a Business," by Mr. D. MITCHELL, and on "Cytisine," by Mr. F. H. CARR, and the proceedings then terminated.

DUNDEE CHEMISTS' ASSISTANTS' AND APPRENTICES' ASSOCIATION.

The annual business meeting of this Association was held last week. Mr. James Kinnear occupied the chair. After the Secretary's report had been read and approved of, the following office-bearers were elected:—Hon. President, Bailie Ferrier; Hon. Vice-Presidents, Messrs. J. H. Thomson, A. B. Anderson, W. Cummings, and Charles Kerr; President, R. M. Lindsay; Vice-President, James Davidson; Secretary and Treasurer, A. Kidd; Assistant Secretary, A. J. K. Paterson; and Members of Committee, G. Young, J. Scrimgeour, and D. Ferrier.

So the fourth session ends, and, truth to tell it, has not been a success. The enthusiasm which attended every department of its work during last session has not been extended to this, while even the subscriptions, on which to a large extent the continuance of the organisation depends, have fallen short. Some of the meetings during the session were perforce omitted through lack of enthusiasm on the part of lecturers and members. This was the substance of the Secretary's report. He attributed this state of things chiefly to the fact that local assistants had been shifting about a good deal of late. A new room had been taken for the meetings at a cheaper rent, and it was hoped that, with the expenses thus reduced, they might go on to better things. The financial statement showed the income for the session to be 8*l.* 3*s.* 5*d.*, and the expenditure 23*l.* 9*s.* 6*d.*, of which 18*l.* was for rent, or a loss of over 15*l.* on the year's transactions. This was met by the reserve fund, leaving a balance at the bank of 3*l.* 2*s.* 7*d.* The President remarked that while the committee regretted that these reports were not more encouraging they had done the best under the circumstances. It thus seems that the Association is threatened with the fate that has attended every provincial junior association which has attempted housekeeping, and if it is to live through another session it must adopt a "no-rent" policy, be somewhat less ambitious, and much more enthusiastic.

LIVERPOOL CHEMISTS' ASSOCIATION.

At the meeting of this Association, on March 16, Mr. G. S. WOKES read a paper entitled—

WHAT IS OUR DUTY TO THE PHARMACEUTICAL SOCIETY?

The author sketched the history and work of the Pharmaceutical Society to show that it had fulfilled the duties which devolved upon it. The principle to be insisted upon in future was that of qualified ownership, preventing the evil of company trading. With that the "widows' clause" would have to be abandoned; "but this would be no injustice, for it would be only carrying out what was undoubtedly the intention of the original Pharmacy Acts." The curriculum proposals were also cordially approved, and the author concluded with the assertion that "if we wish to advance the interests of our calling, our clear duty is to give our hearty support to the only body that can officially represent us—i.e., the Pharmaceutical Society."

In the course of the discussion, Mr. R. PARKINSON said he had been connected with pharmacy since 1849, and to-day he felt more than ever that the Pharmaceutical Society was worthy of the confidence of chemists. The difficulty of securing convictions for infractions of the Pharmacy Acts was largely due to the inability of the Society to get

definite evidence. In addition to this many prosecutions were unpopular with the trade.

Mr. A. C. ABRAHAM thought Mr. Wokes had taken high ground in the title of his paper. If it had been "What is our interest in the Pharmaceutical Society?" it would have been more likely to attract the attention of the trade. He feared the average chemist did not think much of the question of duty; but if it could be shown that it was to his interest to join the Society he would no doubt do so. It was imperative that chemists should recognise the value of combination if any definite advantage was to be effected. Only a small proportion of registered chemists were members of the Society, and yet the majority who were not members made no effort to do more than grumble. If the Society was not representing their views, why did they not join and alter the policy of the Society? With regard to the widows' clause, which had wrought so much mischief for the Society, he would remind those present that when the Society tried to give effect to the clause in the early days of its operations, it was the opposition and sentiment of the chemists themselves that rendered it inoperative. The early prosecutions were most unpopular, and the Society had to defer to the general expression of disapproval, though they saw that if chemists' widows were allowed to carry on businesses indefinitely, the whole framework of the Act was seriously affected.

Mr. HANSON and Mr. J. SMITH also spoke in a similar sense.

GLASGOW PHARMACEUTICAL ASSOCIATION.

AT the fortnightly meeting of this Association held on March 16, Dr. WILLIAM MACLENNAN, assistant to the Chair of Materia Medica and Therapeutics in the University of Glasgow, delivered an interesting lecture on "A Study of the Physiology of Digestion with a View to Treatment of certain Digestive Disorders by Diet and Medicinal Agents." The lecturer first traced the processes of digestion. A mistake was often made, he said, by supposing that as long as nutriment is swallowed it is sufficient and must nourish the invalid. Food in the stomach was as much outside the body as when lying on the table unless it was thoroughly digested. A great many of the digestive disorders of the present day are traceable, directly or indirectly, to too hurried mastication. Dealing with insalivation it was next pointed out that saliva is alkaline in its reaction. The secretion varies greatly in quantity. It contains ptyalin—a diastatic ferment—and calcium carbonate—the latter the principal cause of the tartar on the teeth. Certain conditions tend to make saliva acid, and to deteriorate the teeth. In this respect the advantage of using alkaline tooth-powders was urged. Ptyalin being absent from salivary and pancreatic secretions in very young infants showed that starchy foods were not meant to be administered to such tender children. The action of saliva to be perfect must be preceded by thorough mastication. In order to bring every particle of food in contact with the ferment. Strong acids and much alcohol arrest the diastatic action. By the action of saliva starch was changed to dextrin, maltose, and ultimately to grape-sugar. The ferment acts feebly on raw but powerfully on cooked starch. In preparations of ptyalin Dr. MacLennan stated that his experience proved that glycerine extract was good for the purpose. The lecturer then went on to describe the action of the gastric juice. It was explained that proteids are converted to a syntonin by the action of hydrochloric acid, and by the further action of pepsin to peptones. Peptones are completely soluble in water, and easily diffusible through animal membranes. Certain drugs interfered with digestion by precipitating the peptones—such as silver nitrate, acetate of lead, tannic acid, and strong alcohol. These medicines should be given in keratin-coated pills. In the treatment of gastric disorders acids and alkalies are usually the best to employ; but when such medicines had to be taken the physician should be careful as to directions in relation to meals, as different effects are produced when taken before and after food. The administration and action of certain powders—bismuth, charcoal, and manganese—stimulants, and artificial digestive agents were then dealt with, and the statement made that some of these agents were often prescribed by physicians in such a way as

to make them inert. In closing, Dr. MacLennan stated tentatively the results of certain experiments that he had made with several preparations of pepsins. Many of the preparations in the market he found were almost inert, and therefore useless. So far as he had gone he found that the glycerine extracts were the best.

The PRESIDENT announced that on Thursday next, March 30, a discussion would take place regarding the preparation and sale of ginger-wine essence as it affected chemists.

EXETER ASSOCIATION OF CHEMISTS AND DRUGGISTS.

A MEETING of the above Society was held on Wednesday evening last, when a paper on "The Relationship of the Pharmaceutical Society to the General Body of Chemists" was read by Mr. E. LEMMON. Mr. J. H. Lake occupied the chair.

Mr. Lemmon's paper was an able justification of his abstention from subscribing to the Pharmaceutical Society. His main reason for remaining outside, he said, was that he saw no benefit to himself, and only a very problematical one to the trade generally, in return for the subscriptions. It might be said, "Surely you support many causes from which you get no direct benefit?" This was, of course, true; but in those cases he either expected some indirect benefit, or the object was one he had sufficiently at heart to make a sacrifice for. He did not object to the work of the Pharmaceutical Society, and, as a non-subscriber, he had but little sympathy with folks who, though they have never raised a finger to help it, are continually saying, "Why does not the Society do this, that, or the other thing?" but he said it was work he did not feel bound to assist, either by subscription or otherwise. His ideal society should be more of a trades defence association and less of a scientific institute, its most important duty being to assist chemists in maintaining rights and privileges. Of course, this should be done in an intelligent manner, by making the said rights and privileges subservient to the general welfare of the community. He instanced the attacks of the Society of Apothecaries and of the Veterinary College as opportunities for the work of such a society.

Mr. Lemmon's arguments were opposed by Mr. WEBBER, Mr. HARRIS, and Mr. ROWSELL, but supported by Mr. TUCKER. The CHAIRMAN wound up the discussion by defending the Society.

Gazette.

PARTNERSHIPS DISSOLVED.

Armitage, S. H. T., doctor of medicine, and **Courtney, G. B.**, bachelor of medicine, under the style of Doctors Armitage & Courtney, Grosvenor Street, Grosvenor Square, and Seymour Street, Portman Square, W.

Hunter, J., and Gow, J., under the style of Hunter & Gow, Liverpool? sheep-dip and tobacco-jnicc manufacturers.

THE BANKRUPTCY ACTS, 1833 AND 1890.

RECEIVING ORDERS.

Pasmore, James Henry, Tottenham Court Road, W., chemist.
Ryves, William Edgar, Sheffield, surgeon.

ADJUDICATIONS.

Evans, Evan Thomas, and Henry, John (trading as E. T. Evans & Co.), Pembroke Dock, chemists, druggists, and wine, beer, and spirit merchants.

Ryves, William Edgar, Sheffield, surgeon.

Twinberrow, James Kimberley, Wignore Street, W., Westbourne Grove, W., both in Middlesex, and Streatham, S.W., late Priory Road, West Hampstead, N.W., chemist and druggist.

ORDER MADE ON APPLICATION FOR DISCHARGE.

Webb, William David, Wood, John Robinson, and Turney, William George (trading as Webb & Wood), Knottingley and Castleford, Yorkshire, glass-bottle manufacturers—discharge suspended two years, ending February 14, 1895.

Legal Reports.

THE ALKALINE REDUCTION SYNDICATE (LIMITED).

IN the Chancery Division on Saturday, before Mr. Justice Stirling, a motion for judgment in the action *Smith v. The Alkaline Reduction Syndicate (Limited)* came on for hearing.

Mr. Graham Hastings, Q.C., who appeared on the motion, explained that the plaintiff was holder of part of an issue of 7,000% debentures of the company, and those debentures contained a provision that the principal-money secured by them became immediately payable if an order was made, or if an effective resolution was passed for winding-up the syndicate. On September 1, 1892, a meeting was held, at which a resolution was passed, and Mr. George Edward Swithenback, C.A., was appointed liquidator. This debenture-holder's action was commenced immediately afterwards. The order now asked for was an immediate order for sale. The assets consisted chiefly of the works, plant, and machinery at Newcastle, and the Receiver had been endeavouring to get an offer for them as a going concern, and it was just possible he would get such an offer from the landlord. Meantime the rent was running on; they were approaching another quarter-day; and, unless they could get the order, they might have to sell at a breaking-up price, which would make a considerable difference to all parties interested.

After some conversation, his Lordship made an order for the sale of the property under the direction of the Judge in Chambers.

A DENTIST'S APPRENTICE.

IN the Sheffield County Court, on March 16, before Judge Ellison, Reginald Hartley Whitfield sought to recover 2*l.* as damages from George Henry Bradford, dentist, who carries on business as "Bradford & Co.," at Sheffield, Barnsley, Hull, Bridlington, and elsewhere. The plaintiff, for whom Mr. A. M. Wilson appeared, was an apprentice with the defendant, for whom Mr. W. E. Clegg acted, and he claimed damages for breach of contract by reason of the defendant's not having taught him the art, trade, or calling of a dentist according to the terms of the apprenticeship indenture entered into between them. The plaintiff also asked that the indentures might be cancelled.

Mr. Wilson stated that in March, 1891, the plaintiff was apprenticed for five years to the defendant. For the first three months the lad received a fair amount of instruction, but the manager then left and he had practically learned nothing since. The managers were frequently changed, the business declined, and there was nothing for plaintiff to do but to look out of the windows. His father wrote to the defendant, and told him that his son was wasting his time, and asked that the indentures might be cancelled. The Court was now asked to annul them, as the lad did not wish to waste another three years.

The plaintiff, in bearing out this statement, said he had learned nothing of the surgical part of the profession, and he had not been allowed to do plate-work. In cross-examination he admitted that while with Mr. Bradford he had done work for a former master. The defendant had not advised him to read dental works.

Mr. Clegg, in defence, said the defendant had been unfortunate with several of his managers, who, although having good credentials, had turned out failures, and the business had suffered. It was, however, growing again, and was fairly remunerative. He contended that the defendant and his managers had done all they possibly could to teach the plaintiff his profession.

Mr. Bouillon, formerly manager for the defendant, and Mr. Forshaw, dentist, Bradford, said from specimens they had seen of the plaintiff's work he was exceptionally competent for the time he had been at the business and must have been well taught. The plaintiff was not old enough to be put to surgical and plate work.

His Honour reserved his judgment.

THE SALE OF POISONOUS STAMPED MEDICINES.—THE PHARMACEUTICAL SOCIETY DEFEATED.

AT the Ystrad County Court on Tuesday, before his Honour Judge Gwilym Williams, the Pharmaceutical Society of Great Britain brought an action against Mr. R. T. Jones, ironmonger, &c., residing at Treherbert to recover 5*l.* for illegally selling patent medicine containing poison. Mr. Gray, barrister-at-law, London, instructed by Messrs. Flux, Son & Co., prosecuted on behalf of the Society, and Mr. J. Phillips, Pontypridd, defended. The evidence of the prosecution showed that on October 28 last their representative, Mr. Owen, formerly a draper's assistant, purchased from the defendant's assistant a bottle of Fellows's syrup of hypophosphites, which contained a small quantity of strychnine. The defendant was not qualified by law to sell or dispense medicine of any kind. Mr. Owen said, in reply to his Honour, that he might have been drunk on the date in question. Mr. Phillips stated that the defendant had disposed of all his stock of patent medicines to Mr. Richards, a chemist residing in the same locality. Mr. Enoch Davies stated that he called at the defendant's shop in September, and asked for a bottle of Fellows's syrup of hypophosphites, but the defendant told him that he was prohibited to sell any, and had not kept any of such medicines in stock since the beginning of June, or about three months previous to the alleged visit of the Society's representative. His Honour observed that Mr. Owen's evidence was most untrustworthy, and gave judgment for the defendant with costs.

ALLEGED ADULTERATION OF LIQUORICE.

TWO summonses were heard before Mr. Stewart, the Liverpool Stipendiary Magistrate, on Wednesday, against a grocer and a confectioner for selling liquorice-stick which was not of the substance and quality asked for. The first defendant was Mr. Gilbert Dear, grocer, Berry Street. Mr. Pierce, of the Town Clerk's Office, appeared to prosecute. A youth named Joseph McCoy proved buying four sticks of liquorice from the defendant's shop on February 16, for which he paid 4*d.* He handed them to Inspector Baker, who divided the sample, and sent a third portion to Professor Campbell Brown, the public analyst. Dr. Brown's certificate stated that there was upwards of 22 per cent. of wheat flour and ground wheat-husks in the sample, and 8 per cent. of glucose. Dr. Brown stated that the sample also contained other matters, which he was unable to identify, and it was quite worthless as a liquorice. As no defence was offered, and there being no previous conviction recorded against the defendant, the Magistrate imposed a penalty of 10*s.* and costs.

Edward Woodward, confectioner, Great Charlotte Street, was next summoned for a like offence. The youth McCoy said he paid 5½*d.* for the four sticks in this case. The certificate of the analyst stated that this sample contained upwards of 10 per cent. of granules of potato-starch, and his further observation was that "genuine liquorice contained no starch-granules and no foreign starch of any kind. The addition was unnecessary, unusual, and fraudulent." The defendant stated that he had been summoned to that Court about two months before for selling liquorice from exactly the same parcel and the same brand, but the report of the analyst seemed to have varied. In one case it was 6 or 7 per cent. of farinaceous matter, and now it was 10 per cent. The Magistrate said that might be. The defendant said he could not see how it should be with the same sample. He had stated before that he was not the manufacturer of this article, and told the Court that it was manufactured abroad, and that it was impossible to manufacture even the most expensive brands without some farinaceous substance. Liquorice-extract in its pure state could not be eaten. He had been brought there on an exactly similar charge as before.

Mr. Pierce thought the Court ought to hear what the proper composition of liquorice was.

Mr. Stewart said it seemed to him that the whole thing depended upon the description given. If people went to buy liquorice sweetened from a confectioner's shop they did not go for a medicine, and undoubtedly they would not get a pure drug. The defendant showed him last time that if the extract was sold too strong the result would be of an alarming

character. If liquorice were sold by chemists and found to be so adulterated as to have lost its strength without intimation being given, that would be by law adulteration; but when a person said "this is a sweetmeat," he did not think there would be justification in asking him to provide it in the form of medicine. Flour entered largely into sweetmeats.

Mr. Pierce said the defendant sold this for the same as could be got at the chemists, and the inspector asked for liquorice and got a commodity which was not known as such.

Mr. Stewart said there was no proof of this.

Mr. Pierce asked for an adjournment to call further evidence, but the Magistrate did not see the necessity of this. Dr. Campbell Brown's words under the head of "Observations" were not of the same weight as those in the certificate, and would have to be proved; but even if they were proved it would not make any difference in his mind. In reply to Mr. Pierce the defendant said he only sold the second quality of liquorice. That which would be sold by chemists as the first quality would be double the price. Mr. Stewart ultimately dismissed the summons and allowed the defendant 10s. 6d. costs. The defendant asked whether he would be liable to be brought up again on a similar charge, but the Magistrate could not satisfy him on this point, and he remarked that it would become a question whether he should sell liquorice at all or not. (Laughter.)

AGREEMENTS IN THE DRUG-TRADE.

AN important point as to agreements entered into in the drug-trade came on for decision in the High Court on Wednesday, before Mr. Justice Grantham. Mr. Frederick Fink, carrying on business as a drug, drysalt, and gum merchant in Mincing Lane, brought an action against Mr. Alfred Richard George Haworth, formerly traveller in his employ, to obtain an injunction restraining the defendant from continuing to commit a breach of an agreement, and also for damages. In reply to this, the defendant pleaded that the agreement was made when he was an infant, and it was unreasonable, and ought not to be enforced. It was adduced in evidence that some years ago the defendant entered Mr. Fink's employ as a message-lad. In February, 1883, he became a clerk and London traveller under an agreement. This agreement contained a clause that he would not, at any time during the space of two years from the date of leaving the service of the plaintiff, carry on for himself, or in partnership with any other person or firm, the business of a drug, drysalt, or gum merchant, nor accept a situation as clerk or traveller to any other person or firm in the like business within a distance of ten miles of London. For a breach of this agreement the defendant was liable to pay 100l. per month by way of liquidated damages. Mr. Fink contended that Mr. Haworth had broken the agreement by leaving his employ and entering the service of Messrs. Van der Lely & Simpson, who also carried on business in London as drug and drysalt merchants. Mr. Haworth, on the other hand, urged that the agreement might be determined by either party on giving a month's notice; but no reference was made in it to salary.

His Lordship, in giving judgment, said he had no doubt agreements of this kind were in the interest of infants. There was, however, in the agreement no reference to salary to be paid, and as it might be made an engine for great oppression on the part of the employer against the employed, he could not say it was a desirable agreement for an infant to enter into. Accordingly, he entered judgment for the defendant.

A NEW PHARMACEUTICAL FACTORY IN INDIA.—A factory, to be known as the Bengal Chemistry and Pharmaceutical Works, has been started in Calcutta with the object of manufacturing locally, and as far as possible from indigenous sources, "a number of preparations, including acids and ethers." Dr. P. C. Ray, of the Presidency College, will act as its consulting chemist and analyst, while Dr. Amulya Charan Basu, of the Calcutta Medical School, who has studied at Edinburgh, is the consulting medical adviser. Baboo Satis Chunder Sinha is the managing proprietor of the concern, and another promoter of the firm is Dr. Amulya Charan Basu, the assistant secretary of the Medical School.

Bankruptcy Reports.

Re JAMES HENRY PASSMORE, 116 Tottenham Court Road, Chemist.

THIS debtor filed his petition at the London Bankruptcy Court on March 16, and upon the application of Messrs. Inderman, Clark, and Parker, solicitors under the proceedings, the usual receiving order was made by Mr. Registrar Brougham. The debtor states that he has stock and fittings worth 500l., a few book-debts, and that the business was chiefly for cash. The premises were held on a lease, having two-and-a-half years to run, at a rental of 200l. per annum; one quarter to Christmas last is in arrear. There is a balance of about 5l. at the City Bank, Tottenham Court Road, and he has some household furniture. The amount of the liabilities did not transpire.

Re HENRY POTTER, High Street, Sutton, Chemist and Druggist.

IN this case a receiving order has been made. The following are the

Unsecured Creditors:—

	£	s.	d.
Amor, W. W., & Co., London	10	0	0
Barron, Harveys & Co., London.. ..	40	0	0
Box, T. H., Manchester	55	0	0
Brand & Co., London	10	0	0
Brown, O. R., Sutton	20	0	0
Chinnery & Aldridge, London	20	0	0
City of London Discount Company, London..	50	0	0
Cobbold, A. B., London	100	0	0
Evans, Lescher & Webb, London	70	0	0
Ferrige, W., Sutton	25	0	0
Goldfinch, M., Sutton	25	0	0
Harris, R., London	20	0	0
Herring, J. H., Sutton	100	0	0
Hills & Underwood, London	13	0	0
Hoare, W., Sutton	18	0	0
Holt, C., Sutton	15	0	0
Hooper & Co., London	10	0	0
Hopkins, J., Wood Green.. ..	20	0	0
Idris & Co., London	40	0	0
Johnson & Johnson, London	14	0	0
Kent & Co., London	10	0	0
Lorimer & Co., London	20	0	0
Maw, Son & Co., London.. ..	50	0	0
Miller, R. W., Sutton	100	0	0
Newberry & Sons, London	48	0	0
Potter, J., Sutton	150	0	0
Potter, J. B., Sutton	150	0	0
Ridge, J., Croydon.. ..	20	0	0
Rumilly, A., Forest Gate	1,100	0	0
Schweppe & Co., London.. ..	12	0	0
Van Oppen & Co., London	10	0	0

Partly Secured.

Davenport, H., London	14	0	0
Fox, J. H., London	150	0	0
London and Provincial Bank, Sutton..	171	8	4
Orchard, J., Sutton	17	10	0

DISPENSING ON THE TRINIDAD PLANTATIONS.—There has been a great deal of commotion in Trinidad about the professional status of the dispensers of medicines on plantations. A pharmacist writing in a local journal, asserted that "on almost all the estates in the colony these men are totally ignorant of the therapeutic value of medicines, and are employed by the planters simply because they can be had at one-fourth of the cost of a qualified dispenser." Another druggist then took up the tale, and with much angry denunciation of the "sugar-lords," who own the island, calls upon the local pharmacists to form an association, and, in a body, approach Lord Ripon with their grievances, seeing that they have nothing to hope from the local Legislative Council, which is controlled by the plantation owners, or from the recently established Chamber of Commerce, upon which the drug importers are not represented.

NOTES ON PHOTOGRAPHY.

THE SANDELL PLATE.

THIS plate, which is the invention of Mr. R. T. Sandell, is made and sold by R. W. Thomas & Co. (Limited), Pall Mall. Its special advantage is its entire freedom from halation under whatever conditions it may have been exposed. Mr. Sandell has recently taken a very fine series of photographs, 15 by 12, upon these plates.

DIAMIDOPHENOL.

THIS developing-agent is one of the latest introduced into the market, and is the invention of Dr. Andresen, manufactured in Berlin. In some respects it resembles amidol—indeed, there is a lawsuit pending between the parties interested in developers in regard to the sale of diamidophenol in this country.

NATIONAL PHOTOGRAPHIC EXHIBITION.

MUCH attention is being attracted to the important photographic exhibition which is to be held at the Crystal Palace. The exhibition opens on Monday, April 10, and will remain open for three weeks. The apparatus section promises to be well supported by the prominent firms. A special feature this year will be the demonstrations of photographic procedure.

TELE-PHOTOGRAPHY.

A MOST instructive paper upon this subject was recently read by Mr. T. R. Dallmeyer, F.R.A.S., before the members of the Society of Arts. It will be remembered that Mr. Dallmeyer has invented a lens for taking distant views which has combined in it the precision of the photographic lens and the "distance rendering" of the telescope. The resulting photographs are marvellous, and many were shown by the optical lantern in juxtaposition with those taken with an ordinary R.R. or view lens. Tele-photographic lenses are made in several sizes, and can be adapted to any camera.

PRINTING OUT LANTERN-PLATES AND OPALS.

THE Paget Prize Plate Company, Watford, have perfected a lantern-plate which prints out in the sun and is as easily toned and fixed as an ordinary silver print. Using one of the Platinotype Company's printing-lamps it is possible to make a lantern-slide at any time, and if the exigencies of the case should require it, the slide may, without further process, be passed into the lantern and projected on to the screen at once. The colour of the image on the plate when printed out is very like that of an untuned silver print, and the resulting picture on the screen is very pleasing; this colour makes the printed-out opal far more artistic than the bromide opal, which only gives greenish-black tones. Using either the combined toning and fixing bath as the sulphocyanide bath it is possible to obtain a considerable gamut of colours, including a Bartolozzi red, which is, perhaps, the most suitable for the purpose. The plates are cheap, and will form a most attractive article this season.

A LEAD INTENSIFIER.

THOSE stocking photographic goods are often required to give a formula for intensification. The following, which has been introduced by an amateur in Berlin, has been found very successful:—

	Parts
Red prussiate of potassium	15
Nitrate of lead	10
Water	150
Nitric acid	1

All by weight. Dissolve and mix, and then use as follows.

The plate may be immersed or the solution may be poured over it until sufficient density is gained, after which wash well; the plate will now be yellowish white, and the following changes can be easily made. For half-tone negatives—dissolve a little gallic acid in water, and add a few drops of liquor ammoniac; it will then assume a brownish colour. After pouring the solution over the intensified negative several times, the colour will change to an inky-violet; it is found that with this colour soft prints are obtained. The formula permits of many other changes.

Trade Notes.

ON BOAT-RACE DAY the Zox Manufacturing Company were selling excellent photographs of each crew in the London Streets at a penny each. They will send a pair to any chemist who will send his card to 225 Jamaica Road, S.E.

"HOW TO BUY."—That, as many are aware, is the headline to Mr. Jonathan Fallowfield's "Photographic Remembrancer." The one for February and March contains three pages of job lines which chemists should look after at this the beginning of the photographic season. There are other good things in the "Remembrancer," and we note that Mr. Fallowfield (now at 146 Charing Cross Road, W.C.) has divided his catalogue into five sections, each dealing with a department.

THE report of Spratt's Patent (Limited) for the year ended December 31 states that, after providing for expenses and a reserve of 2,000*l.* (as last year) against possible bad debts, there is a balance of 22,382*l.* The deduction of the interim dividend at the rate of 10 per cent. per annum for the first six months leaves 14,882*l.* The directors recommend a dividend for the second six months at the rate of 10 per cent., making 10 per cent. for the year, and also a special reserve of 6,000*l.* to provide for extension of works and business, &c., 1,382*l.* being carried over.

MR. EDWIN TERRY, chemist and F.R.M.S., of 41 Nightingale Lane, Clapham Common, who last year brought out a case of botanical microscopic slides for pharmaceutical students, has supplemented this service by preparing a set of a dozen slides with specimens of the principal starches. The mounting is perfectly performed in fluid, so as to preserve all the characters of the starches, and to exhibit to the best advantage concentric rings, hilum, &c. The set includes *tous les mois* (the largest of the starches), Bermuda, Natal, and St. Vincent arrowroots, also the three starches official in the British Pharmacopœia (wheat, maize, and rice), potato, barley, oats, pea, and sago. In order to facilitate recognition by the microscope, the starches are arranged in five groups, and on each slide is marked the important distinguishing features of each group. The identification is thus much simplified. To detect the adulteration of many drugs such as, for instance, rhubarb, jalap, scammony, cinnamon, *ipccacuanha*—a familiarity with starches in the microscope is essential. Mr. Terry's is evidently almost a labour of love, for the price he charges—10*s.* 6*d.* for the set, in a neat case is extremely moderate.

Personalities.

PROFESSOR VON PETTENKOFER, of Munich, will celebrate the jubilee of his admission to the doctorate on June 30 next.

THE *Hygienic Review* for March contains an article on "The Single Tax as a Promoter of Hygiene," by Mr. S. M. Burroughs, with an excellent portrait of the author.

MR. JOHN MCDUGALL, F.C.S., L.C.C., has been elected the chairman of the County Council's Main Drainage Committee, which he will represent on the General Purposes Committee of that body. Mr. H. J. Powell, B.A., is the new vice-chairman of the committee, and Mr. T. H. W. Idris (Idris & Co., mineral-water manufacturers) is the Committee's representative on the Statutory Appeal Committee.

MR. THOMAS BEECHAM, who for some years has occupied and farmed a small estate known as Mursley Hall, near Winslow, Buckinghamshire, has just sold off all his stock and furniture, and will shortly leave England for America for a lengthy visit. He will look after his business in New York, visit the Chicago Exhibition, and see most of what there is to be seen throughout North America. Mr. Beecham is good enough to say, in a letter to us, that in thus travelling about he is afraid he shall miss his regular reading of THE CHEMIST AND DRUGGIST, where he has "often found an abundance of food for reflection." *Bon voyage*, Mr. Beecham!

MR. BURROUGHS HOME AGAIN.

"GLAD to see you; always glad to see THE CHEMIST AND DRUGGIST! Why, your Winter Issue did astonish them in the States! They don't have anything like that there."

There was a trifle more of the New England accent, and some more of Mr. S. M. Burroughs too, for he has returned



from his trip in the States quite robust, stout, and hearty, and the breath of the sea was still on his face when our representative saw him in his club.

"And were you in Chicago, Mr. Burroughs?"

"In Chicago? Yes; two weeks, hunting around for concessions. It takes time, you know, to get people to agree to your putting up a pavilion in the exhibition grounds to advertise yourself—if you are an

Englishman." The last phrase with a merry eye-twinkle.

"But you managed?"

"Got two concessions. One for the Rosbach Water, in which I am interested, and Mr. Collingwood, my companion, is specially interested. For that we are to put up a handsome pavilion in the grounds, where exhibition visitors can try the Rosbach Water for themselves. No, the Franz Josef Water will not be on tap there. Other and ulterior arrangements are needed for that. Oh, yes; the exhibition is to be a grand thing. Why, they are to spend \$18,000,000 upon it! Imagine that—\$18,000,000! It will be a big thing."

And Mr. Burroughs pictured that all to himself; so our representative reminded him of his own pavilion.

"Well, I got a concession for that too. A nice house we shall build in the grounds, where our medical and pharmaceutical friends from this side—and all sides, I may say—will have a place to meet in, to write letters, chat, and so on. I consider that we owe something to medical men and chemists for helping us to introduce our goods and make them popular, and this will be a little return to them. The house will be built of a new material—rock-plaster. That is a stuff which sets hard, dries quickly, and can be polished as smooth as this glass. The water seems to combine as water of crystallisation, I should think. Rock-plaster is strong and waterproof too. The interior of the house will be elegantly furnished. I want it to be comfortable, and I want all our friends to know that they can use it freely. There will be attendants to look after their comfort."

"Your firm is to exhibit, of course?"

"That goes without saying. We shall send a big staff across. We believe in exhibitions, and have a regular plan to work upon, which we have carried out at Paris, Melbourne, and all the big exhibitions."

"How are American druggists taking to the World's Fair?"

"Very well indeed. There will be very fine shows by all the leading firms. Most of them will be very handsome and very instructive. I don't know why English firms have kept back so much. They'll regret it. You have no idea, Sir, how magnificent a thing that exhibition will be. And there will be crowds and crowds going around."

"But, Mr. Burroughs, we hear from New York that it will not be ready in May."

"That so? Well, you may be sure our part of it will be."

"How have you found business?"

"Very fair. We don't advertise in America, but there is a demand for our goods—a steady demand. Kepler extract! Why, you'd be astonished how much of it is sold in the States. Waiter, give me a bottle of Rosbach Water!"

"I see that was on the card of your New York dinner. Is it taking there?" interposed our interviewer.

"It's going along. We have formed a stock company to work it. Mr. Molloy, a very smart and good man from McKesson & Robbins's, is to manage it as a holder of stock."

Then Mr. Burroughs returned to our Winter Issue and its contents, particularly the principles involved in his article on Morocco—to wit, the non-taxation of medicines. In that matter he has a scheme to propound—something which he thinks will concentrate scattered grumblings about the stamp-tax into united action for relieving the sick man of the tax upon that which will make him well. To follow that adequately needs the charm of Mr. Burroughs's manner, the enthusiasm of his speech; and these are elements which the prosaic interviewer cannot reproduce. But here the man is, eager and ready for work, and large-hearted as usual, for one of the last things that our interviewer heard was that Messrs. Burroughs, Wellcome & Co. had that day distributed the usual share of the profits to their employes, and the amount of that share opened our interviewer's eyes as to the volume of business which the firm is doing.

THE GUINEA GOES TO THE BENEVOLENT FUND.

MR. WILLIAM BOSTOCK, of Ashton-under-Lyne, to whom the first prize was awarded in the Valentine Competition, returns to us the guinea, with a request that we will pass it on to the credit of the Benevolent Fund. Mr. Bostock conveys his request metrically, thus:—

A "blush" revealed my great surprise
When told my "card" had gained the prize.
I thank you, and your readers too,
But votes are due, methinks, to you.
Your *C. & D.* and the *Ph. J.*
Have furnished mental food each day:
For you, and your good "Brother Paul,"
Have edified and cheered us all!
Oft in your "Diary" we look,
And study Siebold's "Year-book."
As pharmacists and chemists, we
Are justly proud of all the "Three!"
Long may you live! a threefold power,
Wise words to write, rich gifts to shower!
The "Valentines," without a question,
Were forwarded at your suggestion;
And if just one was sent to you,
It was the least that we could do.
But, Sir, as named to you before,
We write at night, when work is o'er;
Exchange the pestle for the pen,
And thus recruit our powers again.
The "Valentines" were simply sent
To express "fraternal sentiment."
I've often scribbled bits of rhyme,
Just to fill up my leisure time,
But never earned one penny's pay
Until your cheque arrived to-day!
"Firstfruits" in ancient times, we read,
Were given to God, or friends in need.
Could we but help to cheer the life
Of some poor brother, or his wife,
The cheque I'll cheerfully repay
To our "Benevolent Fund" to-day.
As "supplement" to a "Valentine" sent
Twenty years since to the President!
Pray kindly pass it on from me,
And much oblige—Yours, W. B.

ROYAL INSTITUTION LECTURES.—The following are amongst the lectures to be given after Easter:—Professor Dewar, five lectures on "The Atmosphere"; Mr. R. Bowdler Sharpe, four lectures on "The Geographical Distribution of Birds"; Mr. James Swinburne, three lectures on "Some Applications of Electricity to Chemistry" (the Tyndall Lectures). The Friday evening meetings will be resumed on April 14, when a discourse will be given by Sir William H. Fowler, K.C.B., on "Seals"; succeeding discourses will probably be given by Professor A. B. W. Kennedy, Professor Francis Gotch, Mr. Shelford Bidwell, the Right Hon. Lord Kelvin, Mr. Alfred Austin, Mr. Beerbohm Tree, Professor Osborne Reynolds, Professor T. E. Thorpe, and other gentlemen.

Scientific Notes:

On Chemistry, Pharmacy, Botany, Materia Medica, &c. Original, Selected and Translated.

SEPARATION OF BARIUM AND STRONTIUM.

MR. PHILIP E. BROWNING, in studying the action of amyl alcohol on the bromides of these bases, found that the solubility of barium bromide is about 0.0013 gramme on the oxide in 10 c.c. of amyl alcohol, while that of strontium bromide is 0.2 gramme. To obtain the bromides, the precipitated and thoroughly washed carbonates of Ba and Sr are treated with hydrobromic acid obtained by the action of dilute sulphuric acid on potassium bromide.

OIL OF CINNAMON.

THE chemistry of this oil has not been touched for some time, the latest investigator being J. Weber, who reports in *Arch. Pharm.* that the oil from Seychelles Islands has the colour and odour of oil of cloves and a burning taste (sp. gr. 1.0552 at 18.5°), and consists of eugenol, principally, with small quantities of cinnamaldehyde and of terpenes. Attempts to identify pinene and cineole among the latter were unsuccessful. Benzoic acid, also, could not be detected. The root-oil procured from Schimmel had the colour and odour of oil of cloves, (sp. gr. at 19° 1.0411), and consisted mainly of eugenol, but contained also safrole, small quantities of benzaldehyde, and a considerably larger amount of terpenes than the bark-oil first mentioned. But Schimmel suspects that this second sample was really a leaf-oil.

GELATINISATION OF INFUSIONS, ETC.

THE belief is now general that the gelatinisation which is observed in some infusions and dilutions of tinctures and fluid extracts of vegetable medicines is due to the action of a bacillus. Hauer's investigations (which are corroborative of Bräutigam's) comprised gelatinised decoctions of digitalis, marshmallow, and senega, emulsion of almonds, and various juices. In all these liquids there was found, on incubating, a micrococcus possessing the power of rendering completely viscous sterilised solutions containing sugar, in from ten to twenty-four hours, according to the temperature. Morphologically and biologically the organism was identical with the *Micrococcus gelatinosus* of Bräutigam. Between 20° and 30° C. is the most favourable temperature for the development of the micrococcus.

MAGNESIUM IS VOLATILE

below its melting-point, when heated in hydrogen. Mr. J. B. Kirkland, F.C.S., Assistant Lecturer and Demonstrator on Chemistry, University of Melbourne, has found this to be the case. He says there are two explanations. First, that magnesium heated in contact with hydrogen forms a volatile hydride, easily decomposable; second, that magnesium is considerably more volatile in hydrogen than in other gases—i.e., carbon monoxide and sulphur dioxide. The first hypothesis seems the more plausible. Another curious fact in regard to magnesium is that if a coil of the ribbon (that used for lamps) be taken and gently squeezed in a vice or between the fingers, the metal emits a strong odour reminding one of phosphine. Yet the metal before the pressure has no smell.

ESTIMATION OF EMETINE.

THE *Pharmaceutische Zeitung* (xxxviii. 23) quotes from a Swiss source a paper by Keller, of Zurich, on the assay of ipecacuanha. His plan is to shake 10 grammes of the finely-powdered root (dried at 90° to 100° C.) with 40 grammes of chloroform and 60 grammes of ether. When the powder is thoroughly wetted with the liquid, 10 grammes of ammonia solution (10-per-cent.) is added. The mixture is shaken occasionally in the course of a few hours, and 5 grammes more of ammonia solution added. When the ethereal solution is clear 50 grammes of it (=5 grammes of ipecacuanha) is evaporated and purified by solution in ether and evaporation. The alkaloid in the residue is determined by solution in excess of decinormal hydrochloric acid, the balance being struck with centinormal soda solution, hæmatoxylin being used as an indicator.

ASSAY OF GLYCERINE.

M. G. HALPHEN in his "Pratique des Essais Commerciaux" gives the following method for the estimation of glycerine in the crude article. Place in a 100-c.c. beaker 10 grammes of the glycerine at temperature of 11° C. (which should be maintained), and dissolve in it 6 c.c. of pure phenol. Then run into the beaker from a burette an aqueous solution of phenol, 50 grammes to the litre, until a permanent turbidity is obtained. Note the number of cubic-centimetres of the aqueous solution employed = N. The quantity of pure glycerine contained in 100 parts of the sample is obtained by the following equation:—

$$100 - \frac{28.15 - N}{0.39}$$

The acidity or alkalinity of the sample is determined volumetrically with standard sodium carbonate or sulphuric acid.

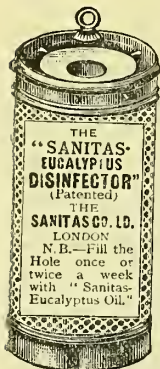
PITTOSPORUM GUM-RESINS.

WE have before us a reprint of a paper by Mr. J. H. Maiden, Curator of the Technical Museum, Sydney, on the exudations yielded by some Australian species of *Pittosporum*. Although the name of the genus is suggestive of a resinous or pitchy nature, little, if anything, has been done to determine the characteristics of the resinous bodies exuding from the species of the genus, and this Mr. Maiden now supplies. All the exudations which he has met with are gum-resins, although *P. phylliræoides*, D.C. (*P. acacioides*, A. Cunn.), is said to yield a water-soluble gum. Those which Mr. Maiden has met with are the exudation from *P. bicolor*, Hook., found in Tasmania, Victoria, and New South Wales, and known as "whitewood," "cheesewood." It has a most sickly smell, which soon causes nausea and headache. It is of a greasy lustre, of a dark-orange colour, and is in irregular fragments, for the most part of the size of peas; it looks like cracklings. It is fairly tough when fresh. It causes paper to have a greasy appearance when pressed upon it. It does not stick to the teeth, but tastes like rancid fat. These characteristics appear to be due to an oleoresin existing in the "gum." Two resins—one soluble in petroleum ether (17.6 per cent.), the other (13.3 per cent.) in ether—were so associated with 2.5 per cent. of essential oil. There was also found in it alcohol-soluble as well as insoluble resin. These are the results from the examination of the dry outer resin. The interior viscid portion was of a homogeneous nature, and of approximately constant composition. The analysis of it gives the following results:—

Resin soluble in ether	53.8
Volatile oil	6.29
Resin soluble in alcohol, but insoluble in ether	1.544
Gum (metarabin) + trace of impurity ..	30.323
Ash	.467
Loss	1.076
	100.000

It thus appears that the exudation is a gum-resin in composition analogous to myrrh.

P. undulatum, Vent. (cheesewood), is found in all the colonies except South and Western Australia. It is liable to be attacked by borers, which cause an exudation of resin, but even in sound trees the fruits are sticky from presence of gum-resin. This substance has a powerful and delicious odour of a turpentine character, which somewhat resembles that of oil of cubebs, but it is quite *per se*. In the mouth it sticks to the teeth, softening very readily. It tastes powerfully aromatic, and slightly burns the tongue. It is of an amber colour when freshly exuded, but darkens with age. It is more or less liquid. The resin healed a dog badly wounded "with amazing quickness." It contains 35.3 per cent. of resin soluble in light petroleum, 33 per cent. soluble in ether, 1.6 per cent. soluble in alcohol, 7.599 per cent. of essential oil, and 4.05 per cent. of arabin. A comparison between the gum-resins of *P. bicolor* and *P. undulatum* shows that the odours are distinct, and apparently characteristic; the melting point of *P. undulatum* gum-resin is lower than that of *P. bicolor*, and the resin of *P. bicolor* is of an orange-yellow colour, while that of *P. undulatum* is almost colourless. The resin of *P. rhombifolium* ("white holly" of the Richmond River) is not sensibly different from the latter.



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Price 1s. each.

"SANITAS-EUCALYPTUS OIL,"

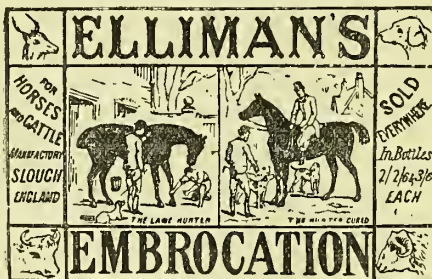
For charging same, and for use in place of ordinary Eucalyptus Oils.

In 1s. Bottles.

THE SANITAS CO. (LIM.),
BETHNAL GREEN, E.

See pages 72 and 73 of the Winter Number, January 28, 1893.

SHOW CARDS, 24 x 17 or 17 x 12
Sent to any address in the United Kingdom.



See first page, facing inside of front of cover, of first issue in this month, for latest particulars.

A POSITIVE PAIN - KILLER.

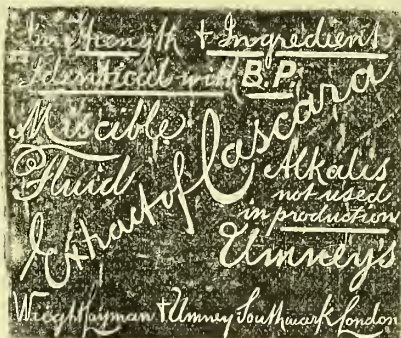
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1s. 1 1/2d. and 2s. 9d. NO CUTTING. [2]

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Mixes with Water.
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"HYDANA BOUQUET" An entirely new persistent perfume.

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Sample dozen, cash, 8/-
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Editorial Comments.

LOCAL OPTION EARLY CLOSING.

THE cordial thanks of all shopkeepers and their assistants are due to Sir John Lubbock for his patient persistence in keeping before the Legislature and the country their grievances

and their claims for some little proportion of rest and recreation. Whether he will ever succeed in getting a workable measure on the statute-book, thus bringing about something like a general restriction of the working-hours of two or three millions of the population of this country, is questionable; but that his frequent ventilation of the topic must have an influence in that direction cannot be doubted. In the resolution which he induced the House of Commons to agree to on Tuesday night he adopts a new method of attaining the end he aims at. The scheme now is to apply the fashionable principle of local option to shop-hours—that is, we presume, to grant to a certain considerable majority of the shopkeepers of a given district the power to coerce into better habits their recalcitrant and greedy neighbours. It is easy to see and to formulate objections to this principle, and difficulties in the way of carrying the plan into operation, and we are afraid the practical obstacles may prove insuperable. But if such an Act could be obtained and worked without too much injustice, the national advantage would be enormous. Sir John Lubbock truly says, "The whole country would gain if shop-assistants had greater opportunities of intellectual, moral, and spiritual improvement." That everyone should have some reasonable opportunity of sharing in the happiness which, it cannot be doubted, has been provided for all the sojourners upon earth, is a proposition which the most rigorous stickler for the old-fashioned doctrine of *laissez faire* will not dispute; and we should think he must acknowledge, too, that long shop-hours prove in hundreds of thousands of instances an effectual bar to participation in pleasures which, in the abstract, are everybody's birthright. But the liberty of the subject is a sacred consideration. The *Times* says, "to exert compulsion upon shopkeepers as to the hours of opening and closing is in itself unreasonable and unjust, and the State might as well prescribe the number of gas-lamps a man should use in his shop front." The State or the municipality certainly would regulate the number of a tradesman's gas-lamps if it could be shown that a common danger or a general inconvenience resulted from too many or too few of these; and, though there may be some repugnance to a law which would restrict the abnormal industry of a few individuals, it may be fairly argued that a little tyranny is a smaller evil than a vast amount of perfectly avoidable discomfort and sanitary evil. In our interview with Sir John Lubbock on this subject, some account of which was published in THE CHEMIST AND DRUGGIST at the time, and to which he himself alluded in his speech on Tuesday, the question was put to him whether it might not be considered that his measure was calculated to make industry an offence. Sir John Lubbock's reply was thoughtful and reasonable. He said, in effect, Such a law could only be enforced if there were a general consensus of opinion in its favour. If, for instance, 25 per cent. of the shopkeepers were anxious to resist it, it would soon become inoperative. But if the discontents were only 1 or 2 or 3 per cent., it is hardly reasonable that their selfishness should be allowed to impede a great and salutary reform. Besides, he added, it often happens that the mere enactment of a measure, if it is in accordance with the popular desire, serves of itself to ensure its adoption. And with pardonable pride the honourable baronet quoted as an illustration of this argument his own Bank Holidays Act, which had, as he truly said, been obeyed by millions of people who were under no sort of compulsion to regard its provisions.

MEDICINE AT PAR.

MEDICAL men, like most other classes, complain seriously and frequently of the overcrowding of their profession. The

tail and the head are rather large for the body of family practitioners, who get along pretty comfortably; but the head, composed of consultants, is much swelled out, chiefly on account of its own importance, and the tail of sixpenny dispensaries, club-doctors, and others of that ilk, has attained to snake-like proportions. The first step towards alleviating the capital congestion and the caudal enlargement appears to have been provided by the regulation which came into force on January 1, 1892, and under which all medical aspirants must henceforth study for five years before they can be registered as medical practitioners. The net result has been an immediate decrease by 734 of the registrations as medical students: the total number entering the medical schools of England, Ireland, and Scotland, during 1892 was 1,671, as compared with 2,405 in 1891. Of course there was a big rush in the latter year, owing to the contemplated extension of the curriculum in 1892, but this does not entirely account for the reduction. The registrations in 1892 were the lowest since 1876, when 1,479 students were registered. The average number of students entering yearly is between 1,800 and 1,900, and it is not at all likely that the five years' curriculum will keep the figure much below 1,800. That figure is double what the entries were a quarter of a century ago; since then medicine has become a popular profession, with the immediate effect of enriching the medical chairs in the Scotch Universities.

The figures in respect to the distribution of students throughout the three kingdoms are not without interest. Of the 1,671 entries during 1892 the matriculants at English schools numbered 918, at Scotch schools 578, and at Irish schools 175. Of the English matriculants 138 were apprenticed to registered practitioners, and there were 12 similarly placed in Ireland. This old system is extinct in Scotland. There are 56 medical schools or places of medical study in the three kingdoms, but only seven of these had more than 50 students last year. These were:—

University of Edinburgh	..	..	..	179
" Glasgow	..	..	..	136
" Cambridge	..	..	..	130
Guy's Hospital, London	..	..	..	82
St. Bartholomew's Hospital, London	..	..	..	70
Owens College, Manchester	..	..	..	69
University of Aberdeen	..	..	..	69

These may, therefore, be considered the most popular medical schools in the country. Following them, with registered entrants above 25 in number, are:—

Queen's College, Cork	..	..	..	48
School of Surgery, Ireland	..	..	..	40
St. Thomas's Hospital, London	..	..	..	39
Charing Cross Hospital, London	..	..	..	38
University College Hospital, London	..	..	..	36
St. Mary's Hospital, London	..	..	..	34
Catholic University, Dublin	..	..	..	33
Liverpool University College	..	..	..	31
Queen's College, Belfast	..	..	..	30
Edinburgh Extra-Academical	..	..	..	30
London Hospital	..	..	..	29
University of Durham, Newcastle	..	..	..	27
Yorkshire College, Leeds	..	..	..	26
London Medical School for Women	..	..	..	25

The registrar wishes it to be borne in mind that the number of students registered at each school does not indicate the total number of first year's students at that place of study, as many are registered prior to entering. In any case the figures are a fair index to the popularity of the schools.

Another section of the register which is of particular interest to pharmaceutical students is that dealing with the certificates of preliminary education upon which students were registered. As we have previously indicated, the most popular certification in England is that of the College of Preceptors, 288 of

which were accepted; then came the London University Matriculation, 230; the Cambridge Junior Local and Previous, 183 between them; the Apothecaries' Society, 76; and the Victoria Entrance, 56. In Ireland, the Royal University Matric. has first place, 105; next the Royal Colleges, 58; and the Intermediate Education Board, 21. Glasgow University stands highest in Scotland with 105; in Edinburgh favours are divided between the University Preliminary 64, Educational Institute 80, and Scotch Education Department 56; Aberdeen University figures for 57, and the Glasgow Faculty for 41. Although the Preliminary Examination certificate of the Pharmaceutical Society of Great Britain is no longer recognised, those holding the certificate dated before January 1, 1892, have still the liberty of presenting it, and of such there were 20 (the registrar says; we find 27) who had it accepted *pro tanto*. The registrars sometimes refuse to receive this certificate, so that students who intend to enter medicine should be prepared with this precedent. The Pharmaceutical Society of Ireland's certificate appears to be included in the above number. As an object-lesson for the future we append the names of the 27 who left pharmacy for medicine last year, and what examinations they passed other than the Pharmaceutical Preliminary:—

Name and where studying	Preliminary Examination in Arts, with Date thereof
Ap-Simon, David, Glasgow ..	Pharm. Soc., 1890; Glasg. Prel., 1892
Askew, John R., Sunderland ..	Pharm. Soc., 1889; Coll. Precep., 1891
Barton, Francis, Liverpool....	Pharm. Soc., 1883; Oxf. Jun. Loc., 1892
Blomfield Thomas N., Hastings	Pharm. Soc., 1888; Coll. Precep., 1891
Bowie, John T., Glasgow	Pharm. Soc., 1888; Prel. Inst. Scot., 1891; Glasg. Prel., 1892
Brice, Ernest, Leicester	Pharm. Soc., Apoth. Soc. Lond., and Coll. Precep., 1891
Cogswell, Philip D., Frome ..	Pharm. Soc., 1886; Coll. Precep., 1891
Dickson, John W., Belfast	Pharm. Soc. Irel., 1884; Fac. Phys. Surg. Glasg., 1889
Fryer, Edwin, London.....	Pharm. Soc., 1887; Coll. Precep., 1889; Apoth. Soc. Lond., 1892
Gascoigne, Charles, London ..	Pharm. Soc. Lond., 1879; Apoth. Soc. Lond., 1892
Johnson, Arthur G., Darlington	Pharm. Soc., 1879; Fac. Phys. Surg. Glasg., 1892
King, John W., London	Pharm. Soc., 1876; Apoth. Soc. Lond., 1892
Langley, John J., London	Pharm. Soc., 1890; Apoth. Soc. Lond., 1892
Long, James E., Bristol	Pharm. Soc., 1890; Coll. Precep., 1891
Onyon, Ellis A., Eye.....	Pharm. Soc., 1883; Coll. Precep., 1891
Osborne, Albert, London.....	Pharm. Soc., 1887; Apoth. Soc. Lond., 1892
Passmore, Arthur B., London	Pharm. Soc., 1883; Apoth. Soc. Lond., 1892
Phillips, Benjamin, London ..	Pharm. Soc., 1887; Apoth. Soc. Lond., 1892
Robertson, James, Edinburgh	Pharm. Soc., 1889; Prel. Inst. Scot., 1891
Sanders, Basil S., London	Pharm. Soc., 1891; Apoth. Soc. Lond., 1889 and 1892
Smith, Catherine L., Glasgow	Pharm. Soc. and Fac. Phys. Surg. Glasg., 1892
Smith, Edward G., Tooting ..	Pharm. Soc., 1887; Coll. Precep., 1891 and 1892
Stephen, George, Aberdeen....	Pharm. Soc., 1886; Aberd. Prel. and Prel. Inst. Scot., 1891
Trail, Stephen G., Aberdeen ..	Pharm. Soc., 1889; Aberd. Prel., 1890, 1891, and 1892
Walsh, Thomas J., Dublin	Inter. Edne. Board. Irel., Jun. Grade, 1884; Pharm. Soc. Irel., 1888
White, Anthony T., Edinburgh	Pharm. Soc., 1885; Prel. Inst. Scot., 1891
Wyper, William, Glasgow	Pharm. Soc., 1889; Glasg. Prel., 1892

CHEMICAL-WORKERS.

SOME very sensational articles have been published of late, especially a series in the *Daily Chronicle*, under the head of "Death in the Workshop," which have brought into prominence the particular risks to which the workmen in chemical factories are liable. and alleging—perhaps a little too recklessly—the neglect of proper precautions on the part of the owners and managers of some of these works. In a lecture recently delivered before the Chemical and Physical Society of

University College, London. Mr. Watson Smith, the lecturer on chemical technology in that institution, very properly examined these charges in some detail. Mr. Watson Smith has had an extensive experience in the chemical-works of Lancashire, and he is in a position to discuss the subject quite impartially. His testimony is distinctly to the effect that it does not (the *Daily Chronicle* says it does) suit the manufacturers to produce their wares under conditions that make healthy living impossible. He states, too, that it is often impossible to compel the men to take advantage of the precautions provided; he assures us that the alkali manufacturers "have felt deeply the unmerited attacks upon their humanity and justice"; and he gives the testimony of some half-dozen men who have worked at the alkali manufacture for twenty to thirty years, and have enjoyed good health all the time. It must be recognised that this question cannot be argued out by collecting isolated instances on either side. Most of us agree, at any rate, that the Home Secretary has been well advised to extend to this industry the protection of special inspection which he is authorised to provide under the Factory Acts. Mr. Watson Smith is, we are glad to see, able to show that the average wages of chemical workers are good and advancing. He gives the following instances:—

The wages paid for bleaching-powder packers in the West-ton Works of the Runcorn Soap and Alkali Company (Limited) in 1865 were not on the piecework system, and amounted to 6s. per day. They average now, under the Alkali Union, 51s. 4d. per week of thirty-four hours. At the Prestolce Alkali-works, near Manchester, in 1871, the packers were paid 2s. per ton of bleaching-powder packed; the rate per ton as now paid at the Widnes Alkali-works is 2s. 4d., which means an average weekly earning of from 50s. to 60s. per week of thirty-six hours.

In subsequent parts of his lecture Mr. Watson Smith deals with the dangers incident to the workers with matches. The risk of necrosis of the jaw cannot be avoided so long as the white phosphorus is employed, as it still is to a very large extent, and is, indeed, on the increase. It can be largely minimised by thorough ventilation, spacious workrooms, and frequent washing. In white-lead factories, Mr. Smith states, there must always be danger when there is dust. The remedy of drinking dilute sulphuric acid, as it is carried out, he considers semi-barbarous, as it impoverishes the blood and injures the digestive functions. He mentions a remedy used at the Northfleet White-lead Works which has proved very efficacious. It is simply good old "brimstone and treacle. The treacle as a saccharine substance is very diffusive, and assists in carrying along the finely-divided sulphur, with the result that the lead suffers precipitation as sulphide of lead, which is soon removed from the system.

WINE-ESSENCES.

The reply given by the Chancellor of the Exchequer to Mr. Reid's question respecting the manufacture and sale of wine-essences containing spirit confirms the information which has been previously published in this journal. The Board of Inland Revenue will not allow unlicensed persons to compound or to sell spirituous preparations intended for use as beverages if they contain more than 3 per cent. of proof spirit. The 3 per cent. of proof spirit is not, as some of our correspondents seem to suppose, a concession just made, but has always, or at least for many years, been the limit permitted by the Board in beverages such as ginger-beer, &c., sold by unlicensed persons. We believe that the exact legal limit is 2 per cent., but that the Board grant another 1 per cent. as an act of grace. It must be understood that it is 3 per cent. of proof, not of rectified, spirit that is allowed,

though the Chancellor of the Exchequer did not make this clear.

DR. BELL'S APPROACHING RETIREMENT.

It appears that a statement announcing the approaching resignation of Dr. James Bell, the head of the Analytical Department of Somerset House, has obtained some slight currency. The account asserts, with a mysterious show of superior knowledge, that "it is also rumoured that the superintendence of this laboratory has been offered to Professor W. Noel Hartley, of Dublin," and winds up with an ill-natured sneer at the "great improvement" which may result from these changes in the conduct of the department. The rumour is one of the familiar kind of "lies which are half the truth," and it is probably upon it that the question asked in the House of Commons on Tuesday night by Mr. Egerton was founded. It is true that Dr. Bell will retire at the end of the year because he has reached the limit of age at which Government servants are allowed to remain on the active list. It is exceedingly improbable, however, that his retirement will involve any change in the policy of the department, or that the Board of Inland Revenue, with whom rests the appointment of a successor to Dr. Bell, will take the most unusual step of departing from ordinary usage in selecting as chief of the laboratory a gentleman who, whatever his scientific attainments may happen to be, has never been connected with the Inland Revenue, and of passing over others, in every way qualified, who have had years of experience in the conduct of the analytical business of Somerset House.

DUTY OR INTEREST.

A small section of the Liverpool chemists have come to the decision, after an entirely one-sided discussion, that it is a sort of moral duty to pay a guinea a year towards the support of the Pharmaceutical Society. We have not the slightest desire to depreciate the services rendered to the trade by the Pharmaceutical Society, nor do we wish to discourage any Liverpool chemist from discharging what his conscience tells him is his duty. But we are not all of us able to consider the matter from the high ethical pinnacle on which the Liverpool chemists stand. The member of the Pharmaceutical Council who took part in the discussion remarked, apparently with tears in his voice, that to the majority of fallen chemists—those away from the moral Mersey, say—considerations of interest are of more concern than considerations of duty. This is very sad if it be true; but does duty really come into the calculation at all? Our moral sensitiveness may be perverted, but we really can see no stronger conscientious obligation on a pharmacist to subscribe a guinea a year to the Pharmaceutical Society than there is on him to subscribe 10s. a year to THE CHEMIST AND DRUGGIST. Both cases seem to us to be on precisely the same level as buying tea or sugar.

SACRIFICING THE WIDOWS.

It should in justice be added, however, that the Liverpool chemists—or, at any rate, the select few of them whose utterances have reached us—appear to be quite willing to sacrifice a great deal more than a guinea on their ideals. They have convinced themselves that they cannot righteously ask Parliament to suppress the evasion of the Pharmacy Act by incorporated companies unless they abandon the exemption clause in reference to chemists' executors. This, we are told, is an old pharmaceutical idea which would have been followed years ago if the Society had not been thwarted by the trade. If that be the case, which we by no means admit, we can only say, Bravo, Trade! We are aware that a few dreamers and sticklers for symmetry have denounced the inconsistency of that exemption, but we do not believe the Pharmaceutical Society as a body would ever put a knife

to its throat in such an insane way. It means that a chemist is to leave no property in his business for his wife and family because there is an infinitesimal portion of that business which requires qualified attention. It means that in hundreds of cases yearly businesses which, properly nursed, yield a life income for the widow are to be knocked from under her the day her husband dies. In his paper Mr. Wokes says "there would be no injustice in this, for it would be only carrying out the original intention of the Pharmacy Act." The inconsequence of that logic is delicious, but we cannot compliment the author on his statesmanship. There is nothing easier than to reduce any statute or any judgment to an absurdity. Shall we have no laws against gambling, against drunkenness, against cheating, because these laws cannot be carried out with perfect consistency? The argument is on a level with that used on behalf of the grocers in the recent High Court argument—that if the law were strictly enforced the sale of tobacco should be confined to chemists because it contains a poisonous alkaloid.

HOW TO STOP ARRANT QUACKERY.

Mr. Walter Stapley, of Dartford, writes an indignant letter to the *Veterinary Record*, quoting an innocent little note published in THE CHEMIST AND DRUGGIST of January 28 on the proposed veterinary Pharmacopœia, in which we ventured to mention that in "Veterinary Counter Practice" chemists had quite as good a recipe-book as they were likely to get from Red Lion Square. On this provocation Mr. Stapley declares "there can be no doubt that chemists aim to become competitors for veterinary practice," and he demands, "What is to be done to stop this arrant quackery?" The answer is very simple. Draft a Bill making it penal for anybody but a veterinary surgeon to give any advice or even to express an opinion on any malady of any animal. Pass that Bill through Parliament and the thing is done. Do you think that would be easy, Mr. Stapley?

THE "DENTISTS' REGISTER."

The Register for 1893 has just been issued by the Medical Council's publishers (Messrs. Spottiswoode & Co., 54 Gracechurch Street, E.C.). and we understand that advantage has been taken of the Council's resolution in regard to "covering" to send to all registered dentists an inquiry-form to ensure the correctness of their addresses and qualifications, and, as a result of this inquiry, the information in the "Dentists' Register" is more than usually accurate. The total number of names now appearing in this Register is 4,817 as against 4,896 in the Register for 1892, being a decrease of 79, probably due to the thoroughness of the revision. Of the 4,817 registered dentists, an increasing proportion are licentiates in dental surgery of the several colleges, the percentage of such dentists being now 25.43 as against 24.07 last year, showing a marked increase from the 10.74 in the Register for 1881. On the other hand, the percentage of dentists whose names appear with no such qualification has further decreased from 75 in 1892 to 73.49 in 1893, a marked diminution from the 89.26 to 1881. The "Medical Students' Register" has also been issued, and is commented upon elsewhere in this issue.

DOCTOR OF BOTANIC MEDICINE.

A group of ambitious herbalists have formed themselves into a "General Council of Safe Medicine," principally, it appears, for the purpose of conferring on each other, and on others who may be considered worthy, the distinction of "Doctor of Botanic Medicine," which, being abbreviated, is to read "M.D. (Ec.)." Very ingenious, no doubt, but calculated, we should think, to bring this General Council into collision with another General Council. Particulars of the incorporation are given this week in our report of New Companies.

CRYSTALLISATION IN QUININE SYRUPS.

By P. W. SQUIRE.

As far as one can judge from the abstract of Mr. Lyon's paper on Easton's syrup, which appeared in your last week's issue, this vexed question appears to be in a fair way of settlement.

I never carried out any detailed investigation on the subject, as a few simple experiments, made two years ago, pointed unmistakably to excess of acid as the disturbing factor. In this respect it is on much the same lines as the B.P.C. *syrupus ferri et quininae hydrobromatum*, which also has given rise to considerable discussion. In the correspondence initiated by Cripps (*P.J.* xix. 586) the only writer who comes near the mark is Green (p. 820).

The acid hydrobromate of quinine is soluble 1 in 6 of cold water, but, as pointed out in last "Companion," its solubility is greatly reduced in presence of free hydrobromic acid. With the full B.P.C. quantity of acid the syrup is very prone to crystallise; with half the quantity a slight separation takes place during very cold weather; with no acid at all the syrup is absolutely permanent, except for a slight precipitation of ferric hydrate. It is obvious, therefore, that the proportion of acid in the B.P.C. formula should be greatly reduced—say, to a fourth of the quantity now prescribed.

With quinine and phosphoric acid, however, the case is rather more complicated. One point to be noticed is that the acid solutions are very apt to get into a *supersaturated* condition, in which crystallisation may or may not take place, according to circumstances which I have never been able to define. A solution which apparently will stand any amount of shaking or stirring with a glass rod will set to a tough solid mass on the introduction of a fragment of the acid phosphate, so that no solution can be considered permanent which does not stand this test. Another, and more important, point is that, while any addition (up to a certain point) of free acid over and above the quantity actually necessary to dissolve the quinine tends to diminish the solubility of the acid phosphate, past that point the action is reversed, and a larger excess of acid again carries the phosphate into solution. For instance, 1 gramme of quinine trihydrate may be dissolved in 0.6 c.c. of acidum phosphoricum concentratum, and with water to 10 c.c. forms a permanent solution, but with 1, 2, or 3 c.c. of acid the solution sets to a tough solid mass, dissolving when water is added to 15, 24, and 30 c.c., respectively. With 4 or 5 c.c. of acid crystallisation is only partial, and with 6 c.c. the solution is again permanent.

If we come now to calculate the proportion of free acid to alkaloid in the B.P.C. formula, we find that the great bulk of the acid is introduced by the *syrupus ferri phosphatis*. Supposing this to be strictly B.P., and the quantity used to be 19 oz. fluid, the total acid, holding in solution 95 grains of alkaloid and 152 grains of ferrous phosphate, is equivalent to about 950 grains H_2PO_4 . Now, it is quite possible to retain the 152 grains of ferrous phosphate in permanent solution with 315 grains of H_2PO_4 , which leaves 635 grains for 95 grains of anhydrous alkaloids, or 6.7 : 1—corresponding approximately to the 1 gramme of hydrated quinine in 6 c.c. of acidum phosphoricum concentratum in the series of solubilities detailed above.

The presence of sugar greatly lessens the solubility of the quinine phosphate in the acid liquid, but if the behaviour of Easton's syrup follows the same lines as the above experiments, it may be expected (1) that a preparation made according to the B.P.C. formula, and using the *syrupus ferri phosphatis* of the B.P., may be quite permanent; (2) if the

acidity be reduced (to a certain point) the tendency to crystallise will be increased; (3) a further reduction in the quantity of acid will result in a syrup which will keep well, and be free from the excessive acidity inseparable from the use of the B.P.C. formula.

413 Oxford Street, W., March 22.

TRADE-MARKS APPLIED FOR.

ANY person who has good grounds of objection to the registration of any of the following marks should at once communicate with Sir Reader Lack, Comptroller-General, at the Patent Office, 25 Southampton Buildings, Chancery Lane, London, W.C.

(From the "Trade Marks Journal," March 15, 1893.)

Sketch of flock of sheep, dog, and Highland shepherd; for sheep-dip. By W. & A. Robertson, The Square, Aberfeldy. 167,980.

"TAITE'S TOOTHACHE TABLETS," signature, and wording; for medicated preparation. By A. Arter, trading as Taite & Co., 6 Duke Street, Strand, London. The essential particular is the signature. 169,519.

"KOCH'S SPECIFIC," and signature, on oval label; for medicine. The essential particular is the signature. 169,856.

"CUSCUTA"; for medicinal compound for cholera and similar complaints. By Mary Rendell, 33 Warwick Road, Earl's Court, London. 170,010.

Monogram and bottles in circular design; for mineral and aerated waters. By J. Wallace & Co., 51 and 55 George Street, Aberdeen. The essential particular is the combination of devices. 167,796.

Hexagonal-shaped design of circles; for mineral and aerated waters. By W. Peers, 15 Oliver Street, Stockport. 170,486.

Sketch of houses on cliff; for perfumery, toilet articles, and soaps. By Frank Gill, Brown's Wharf, Canal Street, Nottingham. 169,321.

Four letters "E" and cross-line device; for toilet-soap. By J. L. Thomas & Co., 162 Fore Street, Exeter. 169,643.

"MATSUKITA"; for perfumery, soaps, toilet-waters, dentifrice, &c. By W. S. Thomson, trading as The Crown Perfumery Co., Old Bailey, London. 169,680.

"GOLDEN NUGGET"; for perfumery, toilet articles, soap, &c. By F. W. Tinker, Soapworks, St. Helens. 170,415.

(From the "Trade Marks Journal," March 22, 1893.)

"ONRESO"; for chemical substances used in manufactures. J. B. Orr & Co. (Limited), Charlton, Kent. 170,341.

"BOVI CURA," device of two stags with antlers interlocked, and signature; for a cattle-medicine. By R. Brothers, 237 Cleethorpe Road, Great Grimsby. The essential particulars are the device of stags in combat and facsimile signature. 170,011.

"THE KILLGERM COMPANY," and signature; for chemical substances used in veterinary, sanitary, &c., purposes. By The Killgerm Company, Whitechapel Road, Cleckheaton. 170,455.

Device of girl drawing long-bow, arrow piercing two hearts, monogram, and wording on label; for chemical substances for use in medicine and pharmacy. By The Charles A. Vogeler Company, Baltimore, U.S.A. The essential particular is the combination of devices 169,396.

"HERCULANEAN," and device of a man kneeling on globe and supporting cross, and wording; for oils for use in medicine and pharmacy. By C. Chapman, trading as Chapman & Son, 229 Cleethorpe Road, Grimsby. 170,070.

"AYER'S HAIR VIGOR," artistic label, figures with long, hair, and wording; for a preparation for the hair. By J. C. Ayer & Co., Lowell, Mass., U.S.A. 170,409.

"CRESCINE"; for a patent medicine for sea-sickness. By the Crescine Manufacturing Company, 52 Leadenhall Street, London. 170,602.

Sketch of girl in evening dress holding soap-tablet; for perfumery toilet-articles and perfumed soap. By G. T. Cannon, Sheep Street, Bicester, 163,195.

"MAY QUEEN," and wording, and bucket containing soap-tablets, labelled; for soap. By J. Eavenson & Sons, 313 N. 20th Street, Philadelphia, U.S.A. The essential particulars are the device and the word "May Queen." 168,795.

Portrait of Robert Burns on circular design; for perfumery. By G. Oppenheimer, trading as Zeno & Co., 39 Wilson Street, Finsbury, E.C. The essential particular is the device. 169,025.

Device of bird standing on gate placed under a bush; for perfumery, toilet-articles, &c. By Davy, Yates & Routledge, 64 Park Street, Southwark, London, S.E. 169,336.

"PHÜL-NÄNÄ," other wording, and sketch of Indian dancing-girl; for a perfume. By J. L. Grossmith, trading as J. Grossmith, Son & Co., 85 Newgate Street, London. The essential particulars are the combination of devices, and the word Phül-Nänä. 170,417.

"GLYSADORA"; for a toilet-soap. By Price's Patent Candle Company (Limited), 31 Threadneedle Street, London. 170,463.

Sketch of sceptre; for toothbrushes. By H. A. Wanklyn, 17 Manchester Avenue London. 170,660.

MARRIAGE.

[Notices of Marriages and Deaths are inserted free if sent with proper authentication.]

THOMSON—PROUDFOOT.—At Waukmill, Glencairn, Dumfriesshire, on March 22, by the Rev. George Proudfoot, Glasgow, uncle of the bride, John Paterson Thomson, chemist, Penicnick, to Jean Armstrong, younger daughter of the late Samuel Proudfoot.

DEATHS.

BARLOW.—On March 6, at Newport, Mr. John Barlow, pharmaceutical chemist, Newport, Salop. Mr. Barlow was well known, and greatly respected. He occupied several public honorary offices in the town.

DOUGLASS.—On March 15, Mr. Richard Douglass, chemist and druggist, Hillfields, Coventry. Aged 78.

MASON.—On March 18, at Cecil Street, Lytham, Charles Mason, chemist and druggist.

McKESSON.—On March 3, at New York, Maria L. McKesson, wife of John McKesson, sen. Aged 76.

NEALE.—On March 18, at 243 Boundary Street, Liverpool, Dr. W. J. Neale. Aged 44. Mr. Neale was for some time in business as a chemist and druggist, but in 1885 he obtained his diploma in the medical profession, and since then has had a successful career.

RICHARDSON.—Mr. James Richardson, formerly president of the Richardson Drug Company, of St. Louis, died in that city from pleurisy on March 22. Mr. Richardson was born in Hopkinton (Vermont), in 1817, and spent the first twenty-one years of his life on a farm. He was originally a grocer, and in 1857 came to St. Louis, where, with Mr. A. A. Mellier, he embarked in the wholesale drug business, under the firm name of Richardson, Mellier & Co. In February, 1884, the concern was incorporated as the Richardson Drug Company, with Mr. James Richardson as president. Mr. Richardson was one of the founders, and an active worker in, the Western Wholesale Drug Association, and a prominent member of the National Wholesale Druggists' Association, which succeeded the first-named organisation. On January 1, 1889, the Richardson Company's buildings were destroyed by fire, and after that the partnership was dissolved.

New Companies.

PARKER REMEDIES CO. (LIMITED).—Capital 1,000£, in 17 shares. Objects: To carry on business as manufacturers and vendors of patent, secret, and other medicines and remedies, &c. The first subscribers (who take one share each) are: W. Parker, 11 Southcot Place, Bath, grocer; Eliza Parker, 11 Southcot Place; W. Parker, jun., 14 Richmond Park Road, Kingston-on-Thames, stationer; C. Parker, 34 High Street, Notting Hill, W., chemist; S. Williams, Bristol, solicitor; E. Watts, 54 Belmont Road, Bristol, gentleman; G. Marks, St. George, Gloucester, clerk. There shall not be less than two nor more than five directors. Qualification, 25£. Registered office, Shannon Court, Bristol.

GENERAL COUNCIL OF SAFE MEDICINE.—Limited by guarantee, each member being liable for not more than 5£. Objects: To grant degrees, scholarships, &c., in the magnetic and botanic system of safe medicine, the highest diploma conferring the distinction of "Doctor of Botanic Medicine"—"M.D.(Bc.)." The first subscribers are:—D. Younger, 20 New Oxford Street, W.C., medical herbalist; A. Bedells, 78 Chatsworth Road, Clapton, London, N.E., medical herbalist; R. Hoare, 92 Bartholomew Close, E.C., merchant; C. Gapp, 104 Green Street, Victoria Park, E., medical herbalist; C. Norfolk, 19 Ball's Pond Road, N., medical herbalist; A. W. Maguire, 90 Devons Road, Bow, E., medical herbalist; and V. Trimming, 30 St. Ann's Road, Tottenham, N., clerk in holy orders. Registered office, 21 Stepney Green, London, E.

FLEMING & CO. (LIMITED).—Capital 1,000£, in 17 shares. Objects: To carry on the business of a chemist and druggist and optician, and to sell and deal in salts, acids, alkalies, drugs, medicines, herbs, perfumes, &c.; also to acquire the business of a chemist and druggist now carried on at 107 Prescot Street, Liverpool, under the style of "Lancelot Fleming." The first subscribers (who take one share each) are:—L. Fleming, 107 Prescot Street, Liverpool, clerk; W. H. Archer, 113 Gregson Street, Everton, Liverpool, book-keeper; Alice Milner, Richmond Road, Berkdale, spinster; W. Spensley, 107 Prescot Street, Liverpool, chemist's assistant; W. E. Whifton, Nunwick Farm, near Ripon, salesman; J. R. Spensley, Mill House, Reeth, Yorks, farmer; and J. Cryer, 11 Chorlton Terrace, Chorlton-on-Medlock, chemist. There shall not be more than four nor less than two directors, and the first shall be appointed by the subscribers. Remuneration to be determined in general meeting. Registered office, 107 Prescot Street, Liverpool.

STAINSBY & LYON (LIMITED).—Capital 75,000£, divided into 250 6£. per cent. preference shares of 100£ each, and 5,000 ordinary shares of 10£ each. Objects: To purchase or otherwise acquire the businesses of manufacturer of and dealer in and contractor for chemicals and chemical products and tar and naphtha distillers and carbonisers of coal, carried on by John George Lyon under the style or firm of "Stainsby & Lyon," at the Aire Tar-works, Knottingley, Yorkshire, and to carry on the business of manufacturers of coke, coal, tar, pitch, ammoniacal liquor, &c., ammoniacal distillers, tar and naphtha distillers, carbonisers of coal, manufacturers of alizarine coal-tar colours, and all kinds of dye-stuffs, and manufacturers of and dealers in and contractors for all chemical products. The first subscribers (who take one share each) are:—John G. Lyon, Carleton Close, Pontefract; Mrs. Lyon, Carleton Close, Pontefract; Miss E. B. Lyon, Carleton Close, Pontefract; John Harker, Low Green, Knottingley; Thomas Holliday, Roper Gate, Pontefract; John P. Barker, Norwood Villas, Pontefract; H. Whitfield, 9 East Parade, Leeds. There shall not be less than two nor more than five directors. The first are John G. Lyon, John Harker, and Thomas Holliday. Qualification, membership of the company. Remuneration to be fixed by the company in general meeting.

A CARTER named Hall on Monday morning entered the shop of Mr. Hart, chemist, Newport Street, Bolton, without coat and boots. He was foaming at the mouth, and Mr. Hart gave him some medicine, but the poor man died in a very short time.

TRADE ORGANISATION.—CONFERENCE IN MANCHESTER.

ON Wednesday afternoon a conference of chemists and druggists was held in the Memorial Hall at Manchester, "to discuss trade organisation and to consider any suggestions which may be brought forward for the improvement of the general well-being of the craft." The conference was summoned by the council of the Manchester Pharmaceutical Association. Close upon a thousand circulars were issued to the registered chemists and druggists of the district, and something like 250 put in an appearance at the meeting. Nearly every town of any importance round about Manchester and Salford was represented in the gathering. Mr. George S. Woolley, President of the Manchester Association, took the chair, and there were on the platform Mr. W. Gowen Cross, of Shrewsbury (Vice-President of the Pharmaceutical Society, Mr. F. Baden Bengel, Mr. H. Kemp (local secretary for Manchester), Mr. W. Stones, Mr. G. H. Westmacott, Mr. W. Wilkinson, and Mr. A. Blackburn (hon. secretary to the Manchester Association).

Letters of apology for absence, and expressive of sympathy with the object of the meeting, were announced from Mr. William Billington (local secretary at Stockport), Mr. A. Ashton (Warrington), Mr. H. Attenborough (Droghda), Mr. Openshaw (Blackburn), Mr. Allan Smith (Sale), Mr. Butterfield (Blackburn), Mr. Jessop (Nelson), and Mr. Evans (Lynn). Mr. Butterfield, in his letter, said the country seemed almost swarming with unqualified druggists and so-called wholesale druggists selling all kinds of dangerous mixtures, and in his opinion that class of trader ought to be promptly suppressed.

The CHAIRMAN, in his opening observations, spoke of the success which attended the conference held in Manchester, at the time of the visit of the President of the Pharmaceutical Society, and said the council of the Manchester Pharmaceutical Association felt that equally satisfactory results might flow from a meeting attended by the Vice-President, Mr. Cross, of Shrewsbury, in whom they had a very good example of men who had worked on their behalf in the past, men who had by persistent endeavour assisted them to attain their present position and secured for them definite privileges—privileges which had at last been acknowledged by a superior judicial tribunal. The thanks of all are due to Jacob Bell for what he did in his day, and to Michael Carteghe—(hear, hear)—Mr. Cross, and the others who were acting with him for what they were doing now. They had also with them an old friend in a new position. Mr. Kemp, the new local secretary, as to whom he would only say that if there were a few more such men as local secretaries up and down the country, the trade organisation in promotion of which they had met would soon be an accomplished fact. Almost alone amongst the trades of the country, chemists and druggists had hitherto been without organisation, or at any rate they had been bound together in a loose way, and the time had surely come when this state of things should be remedied. The recent decision in the case of Piper & Co., and the differences of opinion as to points arising out of it made it specially important that there should be organisation and conferences at the present time. In conclusion, the Chairman quoted from THE CHEMIST AND DRUGGIST the question put by Mr. Frye, M.P., to the Home Secretary, and the interview which one of our reporters had with Mr. Frye, and took occasion to give an emphatic contradiction to the member for North Kensington's statement with regard to the large sum recovered in penalties by the Pharmaceutical Society from the unregistered persons they had prosecuted for selling poisons. The fact was, he said, that not only had there been no profit on the prosecutions, but the balance of loss against the Society up to the end of 1891 was considerably over 200*l.* a year. The year 1892 had been an exceptionally heavy one, and the losses would be greater still. Mr. Frye, he thought, should have been much more careful before making a statement so damaging to his neighbours. (Applause.)

Mr. CROSS, in a speech of about three-quarters of an hour's duration, said he had always taken an interest in trade organisation, but he confessed that if he had not been of an optimistic, hopeful turn of mind he might long ago have come to regard the organisation of the retail drug trade as akin to the whipping of a dead horse, so poor had been the

response to the efforts that had been made; but, being what he was, he lived in hope. As to the paramount necessity for organisation at the present time, he thought there could be no doubt, and in his judgment there was only one way to successfully organise, and that was to make use of the only organisation already in existence, and for such of them as had not already done so to join the Pharmaceutical Society. (Hear, hear.) He did not stand there to apologise for the Society. (Hear, hear.) He would remind the bitterest enemy of the Society—if any person of that type was present—that the Society as it existed and did exist was what the trade had allowed it to be made. (Hear, hear.) It never had been and never would be a close corporation inside the trade. It had a democratic constitution; it had a history of which none of its members need be ashamed; it was powerful in having representatives all over the country; its machinery was well lubricated and in good working order. Having thus praised the Society and afterwards spoken in commendation of the Benevolent Fund, Mr. Cross called upon all who were at present outside grumbling to come in, and what was dark illumine, what was low raise and support. Coming to matters more within the range of practical politics, he discussed the judgment in the case of Piper & Co., and counselled his hearers not to plume themselves on it as a victory of the chemist over the grocer and other unqualified dealers in poison. The Act, it must be remembered, was passed for the protection of the public. It no doubt protected the registered chemist, but such protection was dependent on the legality or otherwise of his proceedings. He must see that responsible persons sold goods containing poison in the prescribed manner, and that small or even infinitesimal quantities of poison must not be disregarded. He had it on the best authority that the composition of one soothing cordial in large demand was at one time nine times more strong in respect of its given poisonous ingredient than at other times. It was highly important that a fact like that should be known. There was a proposal that from these things the poison should be taken out for the grocer and left in for the chemist—(laughter)—but he need not point out the danger of such a proceeding to customers. It was clearly a case of *caveat vendor*. He did not say, of course, that the seller should label as poison a medicine which the manufacturer did not say contained poison. Manufacturers had their duties as well as the chemists, and they might be quite sure they would not be likely to neglect their duties. Having again appealed to those present to join the Society, he ended by explaining that in such a meeting he had thought it better to deal in general topics and other than the current pharmaceutical topics of the day, including such matters as territorial representation, the sale of drugs by limited companies, &c.

Mr. H. KEMP, who was the next speaker, said that so far his experience of the local secretaryship had been very satisfactory. With one or two exceptions, nearly all the chemists on whom he had called had either criticised the Society very mildly or promised to join, and some had already joined. In his further remarks Mr. Kemp supported Mr. Cross's appeal on behalf of the Pharmaceutical Society, declaring that it was ignoble to sit aside and not subscribe anything, as so many did, and then come in and divide the spoils if there were any. Men who had left the trade and become dentists or medical men, men who declared they had "chucked it," and certain misanthropic souls, could not be expected to join; but surely out of nearly 15,000 chemists and druggists on the register something more than 4,000 might be expected to join. In going about among chemists he found there was a great lack of unity in many places, a great lack of understanding amongst neighbours. That was a state of things which better organisation would help to remove. He moved:—

That this meeting of chemists and druggists of Manchester and surrounding districts, recognising the great want of unity amongst the members of the craft, and believing that a more thorough organisation would conduce not only to their material advantage, but also to the public good, pledges itself to support this desired unity by all reasonable means, and urges all registered chemists to support the Pharmaceutical Society and local organisations.

(Applause.)

Mr. WM. KIRKBY, who seconded the resolution, enumerated some of the things the Pharmaceutical Society had done for the trade, but pointed out that there were certain things

they had not done, and expressed surprise that they had not done them. It was only just recently, and after pressure had been brought to bear upon them, that they had proceeded against unregistered persons who had been selling poisonous stamped medicines. They had not proceeded under the 15th section of the Act against persons compounding medicines not in accordance with the British Pharmacopœia. Possibly Mr. Kemp might have something to say about that further on in his career as local secretary. We had also staring us in the face the fact that nothing had been done to prevent a limited company, with a qualified man as assistant, from selling or dispensing poisons. The Society's excuse for doing nothing—and it was a right one—was that they had not the chemists and druggists of the country at their back. There were some things the Society could not do. It could not obtain for chemists a monopoly of the sale of drugs, and it was very unreasonable to expect it, first because no skill or technical knowledge was required to sell many drugs; and, secondly, because to put the sale of simple remedies in the hands of chemists only would be a source of great inconvenience to many people—for example, to people living in a village in which there was no chemist's shop. There were two things he thought the Society ought to provide for without delay. One was to try to put a stop to the sale of poisons by limited companies. That ought to be seen to at once. He also thought that every man who had passed the examinations should as a right become a member of the Pharmaceutical Society, and have a voice in the framing of pharmacy laws. (Applause.) The present charter was sufficiently broad to allow of such a desirable change.

Mr. BENDER, in supporting the resolution, expressed a hope that all present were genuinely in favour of trade organisation, and that they did not belong to the type of man—not quite extinct even amongst chemists and druggists—who believed in organisation, but thought it should be organisation of others and by others for his benefit. (Laughter.) He heartily supported Mr. Cross's advocacy of the claims of the Pharmaceutical Society.

Mr. WALTER GIBBONS, while supporting the resolution, differed from Mr. Kirkby on one point. Without wishing to include in the term "drugs" such things as fuller's earth and linseed meal, he certainly thought druggists ought to have a large monopoly in the sale of drugs. (Applause.)

Mr. TAYLOR (Bolton) said he intended to join the Society now. He had not done so before, as he thought he could put the guinea to better use. Consciously or unconsciously, the Society had in the past given too much prominence to the safety of the public, to the utter disregard of the requirements of those engaged in the trade. It had examined men, and taken their fees, but up to the present done little else. Mr. Carteighe, when he was in Manchester, spoke of having "cards up his sleeve," and so forth. That was all very well in its way, but the cards never came down. Unless the Society was much maligned by journals circulating in the trade, the recent prosecution would not have been instituted but for outside interference. All this explained why so many men had refused to join, but they would join now that the Society was waking up to the interests of the trade. He believed that the system of territorial representation would do much to increase interest in the work of the Society. (Applause.)

Mr. RYMER YOUNG (Warrington), speaking as a democrat, expressed the opinion that the present system of representation was very good. He approved of the suggestion thrown out by Mr. Kirkby, and suggested that an addition of five, six, or ten guineas should be made to the examination-fees, and this should constitute a life membership of the Society.

Mr. HUMPHREYS (local secretary for Northwich) said he would like the meeting to have a practical outcome. He suggested the formation of local associations in the towns round about Manchester, and that these associations should send their representatives to a central association to meet in Manchester.

The discussion was then closed with a few words of reply from Mr. CROSS, who defended the delay of the Society in taking action against grocers selling poisonous patent medicines by saying that if the case had been raised before public opinion was as ripe as it had now become, failure would have been the result. (Hear, hear.)

The motion was then put to the meeting, and unanimously adopted.

On the motion of the CHAIRMAN, seconded by Mr. W. STONES, thanks were accorded to Mr. Cross for his presence and address.

The meeting had begun at 3, and as it was now 5, there was no time lost in dispersing, but Mr. BOWDEN succeeded in catching the attention of the retreating pharmacists for a single minute, which he used to propose a vote of thanks to the Chairman. This was heartily accorded.

So ended a gathering which was very successful in its way, although perhaps not quite so practical as some present could have wished.

Business Changes.

MR. R. W. WILLIAMS, late with Messrs. Ivey & Co., London, has opened a new pharmacy, in Rake Lane, Liscard, Cheshire.

THE chemist's business carried on at Market Place, Heckmondwike, by Mr. John Booth, has been acquired by Mr. Fred Mallinson, A.P.S.

MR. TUCKER, chemist and druggist, has succeeded to the business hitherto carried on by Mr. Botwood at the junction of Hythe and Spital Streets, Dartford.

MR. A. PALETHORPE, 7 Victoria Buildings, Ramsay, Isle of Man, will shortly remove to more convenient and centrally situated premises in the Saddle Buildings, Ramsay.

MR. A. MEEKER, who has managed Messrs. Armour & Co.'s business in England, has returned to Chicago to take charge of a department there, and is succeeded in London by Mr. John B. Donaldson.

MESSRS. JAMES ROBERTSON & Co. have now removed their capsule and wholesale and mineral-water business to West Thistle Street Lane, Edinburgh, from George Street. The firm have issued a new list of their flexible gelatine capsules and special preparations.

INFERIOR TINCTURE OF RHUBARB.—At Huddersfield on Tuesday, Sam Bamford, an assistant to the Golcar Co-operative Society, was summoned for selling tincture of rhubarb which, according to the certificate of Mr. Allen, contained only half the proper proportion of extract, and was of only three-quarters the proper alcoholic strength. Fined 40s. and 21s. costs.

THEFT FROM A CHEMIST'S SHOP.—A youth named William Hamilton, who had been a porter in the shop of Messrs. Cheers & Hopley, chemists, Northgate Street, was charged on Wednesday with having stolen a number of miscellaneous articles, the property of his employers. Prisoner's defence was that his wages were so small that he found it almost impossible to live on them. The Magistrates said they would deal leniently with the case, and imposed a fine of 40s. and costs, or in default one month's imprisonment.

THE CASTOR-OIL PLANT is avoided by mosquitoes. In Egypt it is planted about houses to drive them away. A still better plan for towns is to have the young plants in pots, and bring them indoors for a day or two at a time. They must not be kept too long in the shade, as the castor is a sun-loving plant. It is said that the mosquitoes are killed by a poison they find on the reverse of the leaf, but if a dozen leaves are placed about a room that swarms with mosquitoes, the insects will disappear without leaving any dead lying about.

THE TRIAL OF THE SHOP-BOY Edward J. Williams (aged 15) charged with the murder of his master, Mr. Walter Neilson, chemist and druggist, Blackburn, under circumstances already reported, took place at Liverpool Assizes on Thursday. The hearing occupied all day, and ended in a verdict of manslaughter. Sentence was deferred till Friday. No weapon was found. There was, on the admission of prosecuting counsel, an entire lack of motive, and the evidence generally was so inconclusive that it is thought the boy would have been acquitted but for his own confession.

Drugs and Diseases :

Being a continuation of the Treatise in THE CHEMIST AND DRUGGISTS' DIARY, 1893.

LIVER.

CONGESTION, &C.

MAN breathes chiefly with his diaphragm and abdominal muscles. Woman's respiration is more largely confined to the ribs, and less to the parts below them. The use of a corset is accountable for the greater frequency of a sluggish liver and gall-stones among the fair sex. Each movement of inspiration depresses the liver upon the intestines immediately below it. This exerts pressure on the gall-bladder and squeezes out the bile. Under the influence of brisk movement and deeper breathing the gall-bladder is subjected in this way to a process of massage. The flow of bile is constant, but is largely influenced by exercise and diet.

When sedentary individuals shirk necessary exercise, their gall-bladders are not properly emptied. Constipation and digestive inconveniences ensue from bile-deficiency. The bile becomes thicker, and its cholesterin is liable to concrete and crystallise, forming what are known as gall-stones. Now and again these stones pass from the gall-bladder along the bile-duct into the intestine. During their passage they occasion one of the most fearful of all human pains—biliary colic.

TREATMENT.

Exercise is the most essential element in treating a sluggish liver. Any form of active movement which conduces to deep inspiration is good. Daily walking or horse exercise, singing, or reading aloud are instances. Women should wear loose corsets.

Diet should be directed to the avoidance of increased gastric acidity. Animal food should be eaten sparingly unless means are adopted by active exercise or manual labour to work or burn it up. Fat in moderation is helpful. Fruit and vegetables should enter largely into the diet. As a rule, alcohol in any form is prejudicial. The sufferer should eat reasonably and masticate slowly.

Alkaline Waters, especially Carlsbad salts $\mathfrak{zj}$. to $\mathfrak{zij}$. in a tumblerful of warm water, decrease acidity and diminish inflammation of the upper digestive tract. Effervescent salines, taken regularly, are serviceable. Sulphate of soda acts specially on the liver. The following is a good draught for congestion of the liver:—

Sodii bicarb.	gr. xx.
Sodii sulphatis	$\mathfrak{zij}$.
Tinct. zingib.	$\mathfrak{ijx}$.
Inf. gent. co. ad	$\mathfrak{zj}$.

Take this draught in a tumblerful of warm water every morning for a week or so.

The strong alkalinity of bile is due to the presence of taurocholate and glycocholate of sodium, therefore soda is the alkali for the liver.

Mercury must be rigorously avoided in all acute liver-affections, but for many minor liver-ailments pil. hydrarg. at bedtime is excellent. It must be followed by a dose of haust. sonnæ in the morning. Calomel gr. iss. to gr. iv. will suit equally well, and is especially eligible in smaller doses for children.

Ammonium Chloride gr. xx. or more every four hours is largely used in the tropics for congestion of the liver. It stimulates the flow of bile, and also acts as an intestinal anti-septic.

Euonymin gr. ij. is one of the most powerful cholagogue remedies, and is of signal service in cases of bilious torpor.

Dilute Nitromuriatic Acid $\mathfrak{mxx}$. to $\mathfrak{mxxx}$. doses owes its action to its power of dissolving and neutralising uric acid. It may be combined with ammon. chlorid., with succ. taraxaci, and a carminative. It is said to be an excellent preventive of gall-stones.

A Mustard Poultrice, or an ordinary turpentine stupe applied over the liver can be used for pain and heaviness in the region of that organ.

FUNCTIONS.

THE liver is a wonderful organ, always at work filtering, neutralising, purifying, and manufacturing ingredients necessary to life. It is the central laboratory of the body, the heart of the digestive functions. As an excretory organ it plays the part of a natural poison-antidote. The ptomaines of decomposing food or the effete waste of the body itself are alike arrested by it and rendered inert. The intestine is full of noxious poisons. A healthy liver is a living barrier against which they beat in vain.

As a gland the liver is the seat of manufacture of the bile, an intensely alkaline fluid which keeps sweet the intestine and aids to digest fat and other foods. Healthy bile is a germless antiseptic, and when deficient or absent the bowel's contents decompose or become putrid. Bile lubricates the digesting food and is the natural aperient of the body. Constipation occurs when the liver functions are sluggish and the organ is working on short time.

Then, lastly, the liver manufactures a ferment to act upon the grape-sugar of food and turn it into glycogen. It does out this substance to the blood to produce animal heat and force.

TREATMENT.

Intestinal Antiseptics.—There are various remedies which by their antiseptic influence on the intestinal contents tend to lighten the ptomaine-destroying functions of the liver. An example of this form of drug is salol or salicylate of phenol in doses of gr. v. to gr. x. given two hours after food. This substance is not decomposed until it reaches the alkaline secretions of the duodenum. Salicylate of bismuth is another antiseptic of similar character. These salts may be combined together as follows:—

Salol	gr. v.
Bismuth. salicylatis	gr. v.
Sodii bicarb. $\mathfrak{ss}$	gr. v.

Ft. pulv.

Naphthalene in pill gr. ij. will also have a deodorising effect on the intestinal contents. Sulphurous acid in doses of $\mathfrak{mxx}$. every four hours has marked effect as an internal antiseptic, which is found of signal benefit in cases of typhoid fever.

Various drugs used in the form of injections, such as alpha-naphthol, guaiacol, hyposulphite of soda, partly by absorption, partly by neutralising the poisons of the rectum, are helpful to the liver.

In the matter of food meat should be interdicted and a V.E.M. (vegetables, eggs and milk) diet substituted.

Suitable purgatives, such as cascara, aloes, and natural aperient waters, promote intestinal asepis by carrying off effete matter.

Cholagogues.—A study of the action of drugs on the liver functions elicits the fact that there are substances which promote the flow of bile and bodies which have no influence at all. The most powerful of all cholagogue remedies is exercise entailing deep inspirations. When a person breathes deeply, as he would do during active exercise, his liver and appendages are subjected to a process of massage, by which the bile is forced into the intestine in larger quantity. This is why active exercise promotes the digestive functions.

Frequent meals exert a powerful cholagogue action. Each meal aids the gall-bladder in emptying itself. Women, because they breathe chiefly from the ribs, require food at more frequent intervals than men do to secure adequate liver action.

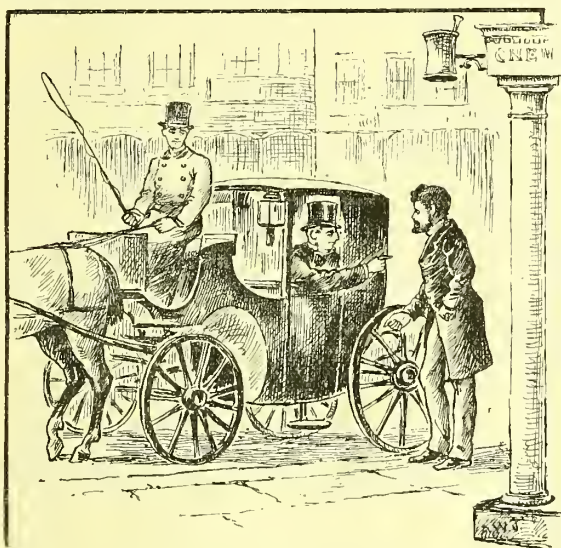
Euonymin gr. ij. is one of the most powerful cholagogue drugs; ox-gall, sodium salicylate or benzoate, chlorate of potassium, and podophyllin also conduce to the same effect.

Chloride of ammonium, sulphate of soda, Carlsbad salts, antipyrin, aloes, rhubarb, and hydrastin to a less degree stimulate the biliary flow.

Calomel and mercurial aperients are asserted to have no action at all on the bile. They act as irritant antiseptics, deodorising yet forcing the bowel-contents onwards and sweeping on the bile in the intestine before it has become absorbed. Such action, nevertheless, very favourably affects the functions of the liver.

THE ART OF PRESCRIBING.

WHAT we like about Dr. X. is his flattering reliance upon the pharmacist's knowledge of posology, and even of therapeutics. The doctor is interested in cases; he executes a diagnosis with accuracy and despatch, but writing prescriptions makes him feel tired. What generally happens is a rapid dash-up of his carriage to the pharmaceutical doorway. "O, I say," come the words of medical wisdom, "just give old Mrs. P. something to cool her down, will you? Liquor ammon. acet., you know, and spirit of nitre and—oh, yes, four minims of ipecac,—every four hours. Good morning. Gusedub Lane." This last to the coachman, who drives off, leaving the pharmacist to collect the *dissecta membra* into a compoundable whole. Very frequently Dr. X., revolving many matters in his noble mind, drives past, forgetting all about the fact that he has told his patient to send to Mr. Pestle for the medicine, which he will order as he passes. Comes the patient, but the physic is not, neither knowledge of it in the mind pharmaceutical. Next day the doctor is so sorry, my dear boy, and full of promises of future amendment; but the pharmacist groans in spirit, knowing that it is his fate to live in an atmosphere of abject apology, surrounded by gloomy, fierce, and suspicious patients,



clamorous for physic or the gore of him who produceth it not. The airy manner in which our doctor slings about the most leprous distillments of the Pharmacopœia is provocative of respectful admiration.

"What? Oh, that old chap! O, yes, let me see. You just give him some iron and nux—and tinct. strophanthus—t.d." The carriage drives off. Out comes a shiny-hatted head from the window with a Parthian shot. "Oh, I say. Just put in a little arsenic too, will you?" This is delicious. One cannot help loving Dr. X.

Then there is Dr. Q. He always writes prescriptions himself in a hand which cannot be described, but which sometimes may be read—in the sweat of the pharmacist's brow. Whether legible or not it matters little. Dr. Q. is as firm a believer in simple prescribing as the "laudamy and calamy" avenger of Flodden in the Scottish legend. A few days' study of his methods will render the pharmacist independent of the hieroglyphic puzzles produced for his inspection. Dr. Q. smites all diseases with the same fascies, and is as successful as most. His infinite variety lies not in the medicine he orders, but in the materials on which his prescriptions are written. He carries no paper, and, as he goes into many houses of the very poor, writing materials are to seek. Blithely the doctor snatches at anything handy—the margin of a stray newspaper, the lid of a cardboard box, the paper cover of a jam-pot, the back of a grocer's butter-

paper, or the interior of a sugar-bag. Peradventure an engraving from an illustrated paper is pinned upon the wall. It is smoky, chewed at the corners, generations of the domestic fly have treated it unkindly. Natheless, 'twill serve. We have a prescription written on the reverse of the portrait of an undeservedly popular novelist, and another written across the pictured brow of the present leader of her Majesty's Government. Inspection as to whether the other side of the picture would not have been better, revealed thereon a comic drawing, and Dr. Q., not writing a prescription *pour rire*, but, indeed, for an aged person of grave countenance, most appropriately chose the solemn visage of the Right Honourable. Once by some means the doctor came into possession of a half-sheet of white demy, and, rejoicing in the unwonted freedom, covered the whole expanse in letters 2 inches long.

Dr. R., again, is thrifty of words. Not his that infinitude of directions, going twice round the bottle and over the cork, or into half an inch square, according to the penmanship and common-sense of the compounder. His *signetur* is mostly verbal, addressed to the patient or friend, which patient or friend, being wholly occupied during the interview detailing symptoms with relish, is in a condition of bland ignorance as to the usage of the remedy, and expects full directions from the distressed chemist. Of such was the young lady who brought a prescription for suppositories. The *signetur* was "As directed." Queried the messenger, "What size of a bowl were we to give these in?" The doctor had explained as to the mode of administration *per rectum*. The one word "bowl" was all that the friend had caught, and that incorrectly. We had to expound to this innocent young person. It was an embarrassing moment.

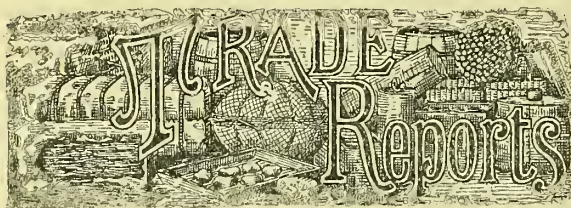
Nevertheless it is desirable to direct very clearly concerning suppositories, lest it occur as it did to one patient, who swallowed in simple faith two strong ones of belladonna and morphia, and did not swallow more only because the doctor prevented her. She did not die. This was not flattering to the activity of our medicaments, and lowered our professional pride.

Those whose elegant pharmacies are situate in pleasant places among an educated people will perceive that we who make our moan are "down in a village of La Mancha, the name of which there is no occasion to remember." They are a stiff-necked generation. We have wasted lavishly the grey matter of our brain, giving various worthy reasons why a teaspoonful of an inhalation should *not* be swallowed in a pint of boiling water. And who shall state the mental attitude of that old wife, lean and poor, told to take two tablespoonfuls of a mixture, and who made answer that she had only one tablespoon in the house, but would borrow another from a neighbour?

W. MACÉ.

GHEE is melted and clarified butter, and is an indispensable article of diet amongst the natives of India. The stuff sold as ghee is, however, grossly adulterated, and the Government is endeavouring to formulate regulations to prevent this. The *Indian Medico-chirurgical Review* advocates that in any legislation provision should be made for the addition of any quantity up to 35 per cent. of sesame, groundnut, cotton-seed and linseed oils, or similar harmless oil. We believe, remarks our contemporary, that some such additions would be absolutely necessary to a ghee Act, for their absence would weigh heavily upon the poor and in the long run defeat the objects for which it might be framed.

U.S.A. TRADE-MARKS.—The following were registered at Washington, on March 7:—"Trommer," for extract of malt, the Trommer Extract of Malt Company, Fremont, Ohio; "Quinona," for quinine tonic, Weeks & Potter Company, Boston, Mass.; "Zerbazin," for a preparation for disguising the taste of medicines, Eli Lilly & Co., Indianapolis, Ind.; "Bonnis," for remedies for pulmonary diseases, Thomas Smith & Co., Ipswich, Mass.; "Bromo-pepsin," for a remedy, Francis M. Crisswell, Washington, D.C.; "Pink Cheeks," for tonic and pills, Joseph S. Dodge, Lincoln, Vt.; "Mesmin's," for pills, Charles Wright, Detroit, Mich.; "Omnia," for liniment, The Reliance Manufacturing Company, New York City; "Electrona," for bleaching-fluid, H. Kohnstamin & Co., New York City.



Notice to Retail Buyers:—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purposes.

It should also be recollected that for many articles the range of quality is very wide.

42 CANNON STREET, E.C., March 23.

The Grasse Perfume Industry.

A report from Grasse states that some improvement is perceptible in the perfumery trade, which has suffered much the last few seasons from want of orders. The violet crop has not been a favourable one, for this year, as for many previous seasons, the violet-plants have suffered from a blight which has much injured the flowering. The French and Algerian geranium-growers continue to complain of the competition to which they are being subjected by the distillers in Réunion, whose output is increasing very rapidly. Almost every steamer that arrives at Marseilles brings Réunion geranium oil—sometimes by thirty cases or more in one consignment. The orange-trees appear to promise as good a crop of flowers as last year, when the harvest was very abundant. The growers are by no means pleased at this prospect, for last year the prices fell so low that they ceased to be profitable, and there is still a considerable stock of the 1892 product left in growers' hands.

German Aniline Dyes in America.

The total exports of German coal-tar dyes to the United States have increased from 6,440,000m. in 1890 to 12,884,000m. in 1892; in other words, they have doubled within two years. According to the district reports of the U.S. consuls in Germany, the exports of the district of Mannheim (which includes the Badische Aniline and Soda Fabrik) have grown in these two years from 5,907,000m. to 9,204,000m.; those of Frankfurt o/M. (with the factory in Höchst) from 6,268,000m. to 6,580,000m.; and those of Barmen (which comprise the "Dye-works, formerly Fr. Baeyer & Co."), from 2,933,000m. to 3,192,000m.

ACID (CARBOLIC).—The market is rather firm, and for liquid 95 to 98 per cent. 2s. is now named as the lowest price, though it might, perhaps, be shaded a little. Crystals, 35° to 35°, are quoted at 6½d. per lb.

ACID (CITRIC).—The market is quiet. Makers ask 1s. 5½d. per lb., but it is possible to buy at lower rates (say, 1s. 5½d. per lb.) the second-hand.

ACID (TARTARIC).—Very flat, at 11d. per lb. for second-hand foreign, and up to 12d. per lb. for English B.P. from the makers.

ALCOHOL.—German potato spirit is again a little dearer, the quotation for good brands being now for April to June delivery 8½d., and April to September 9d. per proof gallon, c.i.f. naked, for large quantities.

ANISE.—Russian seed has advanced, and the stocks are getting very low. Old-crop seed is quoted at 23s. 6d. to 24s., good to fine of the last crop at 26s. to 28s. per cwt.

BALSAM PERU is decidedly dearer. For good quality bids of 5s. 3d. per lb. have been refused, and 5s. 6d. per lb. is now asked.

BLEACHING-POWDER.—Again dearer, and closing very firm. It is said that there has been a good demand from Hamburg, and for casks 9l. 5s. per ton is asked.

BUCHU.—The inflated prices which have been paid for this drug are now causing the collapse of the market for probably many a day to come. This week the *Conway Castle* has brought 135 bales from Cape Town in six different consignments, of which one (of 20 bales) is in transit.

CAMPHOR (CRUDE).—There have been some arrivals. The *Pembroke* has come in with 1,154 packages from Kobe and Hong-Kong. In Hong-Kong on February 15 the market was described as weaker, with accumulating supplies. A sale of 5 tons Japan camphor on the spot was made here this week at 165s. per cwt., but owners would not continue at that price, and since then 167s. has been paid; the quality, however, is said to be not quite up to the mark. These quotations show lower values.

CAMPHOR (REFINED).—Steady, but without change.

CANARY-SEED.—Fifty bags *Mogador* seed sold at auction "without reserve" at a decline—viz., 74s. The export and home trade are both described as very flourishing and the stock is reported to be the smallest known for fifteen years. *Spanish* seed is held at 86s. to 90s., *Turkish* and *Moroccan* at 79s. to 82s. per 464 lbs.

CARAWAY-SEED.—There is a somewhat better demand at slightly firmer prices. For good seed of the last crop, 23s. per cwt. is being paid.

CINCHONA.—The sales of cinchona-bark which were held here on Tuesday were again rather large, the twelve catalogues containing over 3,000 packages of bark, divided as follows:—

	Packages	Packages
Ceylon cinchona ..	800 of which	655 were sold
East Indian cinchona ..	1,659 "	1,505 "
Java cinchona ..	85 "	85 "
West African cinchona ..	265 "	265 "
South American cinchona ..	292 "	254 "
	3,101	2,765

The assortment of bark was hardly up to the average, although the poorer Ceylon kinds were but sparingly represented. There was a smaller proportion than usual of grey bark, but East Indian *Ledgers* (of rather low average quality) were plentiful. A feature of this sale, as it has been of the two or three previous auctions, was the inclusion in it of a considerable proportion of old stock, imported in 1886 and 1889, part of which was now worked off at figures that can hardly have paid more than the warehousing expenses. At the beginning the tone was rather dull, but it speedily improved and kept moderately active throughout the greater part of the sales. The average unit was quite as high as that of the preceding sales—say, 1d. per lb. The following are the approximate quantities purchased by the principal buyers:—

	Lbs.
Agents for the Auerbach works	172,010
" Mannheim and Amsterdam works ..	146,719
" Brunswick works	96,472
" Paris works	75,215
" Frankfurt o/M. and Stuttgart works ..	47,534
Messrs. Howards & Sons	22,880
Agents for the American and Italian works ..	13,230
Snudry druggists	54,827
Total quantity of bark sold	628,887
Bought in or withdrawn	69,342
Total quantity offered	698,229

It should be remembered that the weight of bark purchased is no criterion as to the quantity of quinine acquired by the buyer.

The following prices were paid for sound bark:—

CEYLON CINCHONA.—*Original*—Red varieties: Dust, ¾d.; ordinary to fair quilly chips, 1½d. to 2d.; root, 2d. per lb. Grey varieties: Ordinary dusty to fair chips, 1½d. to 2d.; fair shavings, 3¼d. per lb. Yellow varieties: Low woody chips, 1¾d. to 2½d.; fair medium shavings, 3¾d. per lb. Hybrid: Poor to medium chips, 1½d. to 2½d.; dull shavings, 1¾d. per lb. Mixed low dusty chips (imported in 1886), 5d. to 1d. per lb. *Renewed*—Dull to fair red chips, 1¾d. to 2½d.; grey ditto, 2½d. per lb. Hybrid chips, 2½d. to 2¾d. per lb.

EAST INDIAN CINCHONA.—*Ordinary*—Red varieties: Low and dusty to good bright chips, 1½d. to 3d.; dull to good fair spokeshavings, 1½d. to 2½d.; low to fair root, 1¾d. to

3*d.*; fair broken druggists' quill, 5*d.*; and 270 lbs. of fine druggists' quill, from Calicut, 11*d.* per lb. Grey varieties: Ordinary woody to medium chips, 1½*d.* to 3*d.*; fair quilly chips, 3½*d.* to 3¾*d.* per lb. Yellow varieties: Common woody to fair branch and stem chips, 1½*d.* to 5*d.*; medium to fair shavings, 2½*d.* to 3½*d.*; low branch chips, 1½*d.*; ordinary to fair root, 3½*d.* to 3¾*d.* per lb. Dull to fair hybrid chips, 2½*d.* to 2¾*d.*; root, 2½*d.* per lb. *Renewed*—Red varieties: Common dusty to good bright chips, 1½*d.* to 4*d.*; ordinary to fair shavings, 1½*d.* to 2*d.* per lb. Grey varieties: Medium to good quilly chips, 3*d.* to 5½*d.* per lb. Yellow chips, 4½*d.* per lb. Hybrid chips, 3*d.* per lb.

JAVA CINCHONA.—Yellow chips sold at 3*d.* to 3½*d.* per lb., and shavings at 5*d.* per lb.

WEST AFRICAN CINCHONA.—Country-damaged broken *Succirubra* quills brought from 3½*d.* to 3¾*d.* per lb.

SOUTH AMERICAN CINCHONA.—For sound cultivated Bolivian *Calisaya* in fair, rather irregular quills, 4¾*d.* to 5½*d.*, and for damaged ditto 4*d.* to 5½*d.* per lb., was paid. As the statement is freely made that the quantity of cinchona-bark brought down to Colombo from the plantations by rail was less in 1892 than in the previous year, it may be useful to give the official figures of the Ceylon Government Railways, which are as follows:—1890, 2,523 tons; 1891, 1,684 tons; 1892, 2,027 tons. The exports of cinchona from Colombo are increasing very considerably. These are the figures for the period from January 1 to February 27:—1893, 944,338 lbs.; 1892, 807,286 lbs.; 1891, 1,162,309 lbs.; 1890, 1,198,231 lbs.

CLOVES.—Zanzibar cloves closed on Friday last at lower rates for delivery. For June-August 4¼*d.* down to 4½*d.* per lb. was accepted. The next day, however, an improvement set in, with considerable sales at an advance of about ¼*d.* per lb. upon the previous rates. At auction only 234 bales Zanzibar cloves were offered, and there was very little demand. Seventy bales, offered "without reserve," were knocked down at a decline, realising 3½*d.* to 4½*d.* per lb. for ordinary dark to good fair. Five cases fine picked Penang cloves brought 11*d.* per lb. The trade for delivery remains brisk at fluctuating rates, closing at 4½*d.* to 4¾*d.* per lb. for June-August.

COCULUS INDICUS may be had at 8*s.* per cwt., but there are no buyers.

CREAM OF TARTAR.—Easier. There are sellers of best white French crystals at 73*s.* per cwt., f.o.b. Bordeaux, but no buyers.

GALLS.—A parcel of 34 cases fair Japan galls sold at auction, "without reserve," at lower prices—viz., 46*s.* to 49*s.* per cwt. There has been an arrival of 1,000 cases galls (in transit) from Shanghai by the *Oopack*.

GAMBIER has sold on the spot at 20*s.* 6*d.* per cwt. for good block. Cubes are scarce, and wanted. Small sales have been made for shipment at 31*s.* per cwt.

GINGER.—At auction only 49 bags new crop Cochlin ginger were offered, and sold at a decline; small to bold bright washed rough at 65*s.* to 66*s.* For 5 barrels new Jamaica, small, lean root, 63*s.* per cwt. was paid. In Liverpool sales of African ginger have been made at 50*s.* 6*d.* per cwt. The accounts of the new ginger crop in Bengal (according to a Calcutta report) are favourable. Meanwhile, the Calcutta market is bare of stock.

GLYCERINE.—Firm at 50*s.* to 53*s.* per cwt. from the first-hand, and slightly below that figure in the second-hand.

GUM ACACIA.—The Liverpool market is reported to be steady, but with only little business.

GUM TRAGACANTH.—Business has become much quieter, though the price asked for first Bagdad is still 14*l.* 10*s.* per cwt. Arrivals of hog-gum are expected.

GUMS (VARNISH).—At to-day's auctions *Kauri* gum was in demand at higher prices—selected to fine being from 10*s.* to 20*s.*, ordinary kinds 3*s.* to 5*s.*, and black gum 10*s.* to 15*s.* per cwt. dearer. Batavian *Damar* gum was 1*s.* to 2*s.* dearer. *Copal* slow of sale. Gum *Animi* steady.

INDIGO.—Common East Indian qualities are offering at a decline of 3*d.* to 4*d.* per lb. as compared with the last auction rates, but good to fine Bengal and Oudh are unchanged and firm. There is not much business doing.

LITHIA.—German carbonate of lithia is being offered at lower prices—say, about 9*s.* 6*d.* per lb., though, perhaps, a little less might be taken for quantities; this is a reduction of about 1*s.* French is unchanged at 12*s.*

MORPHIA.—Prices have not yet been changed, but some of the makers say that they contemplate raising the quotation by 6*l.*—that is, 4*s.* per oz.—for powder of *Hydrochlorate* to-morrow.

OIL (COD-LIVER).—The reports are very contradictory, but generally tending easier. On the spot here 60*s.* to 62*s.* per barrel is generally asked for best new season's non-congealing Norwegian, but we hear that some was being offered in the course of the week at 55*s.*

OILS (ESSENTIAL).—The reports from Bulgaria continue to speak unfavourably of the prospects of the rose-crop, and say that the damage caused by the frost is much greater than had been anticipated. *Menthol* is a little dearer; 10*s.* 6*d.* per lb. would probably no longer be accepted on the spot, and 10*s.* 9*d.* is asked. From Hamburg the quotation comes at 10*s.* 7½*d.* per lb., c.i.f. terms. Japanese *Peppermint oil* is held for 8*s.* per lb., American (HGH) for 12*s.* 6*d.* per lb. Other essential oils unchanged.

OPIUM.—Our information from Constantinople, dated March 15, is as follows:—"Sales since the beginning of the month sum up to 27 cases. Yerli and druggists', 7*s.* 6*d.* to 8*s.* f.o.b.; and 15 cases old Tokats talequale, 7*s.* 8*d.* to 8*s.* 3*d.*, f.o.b. according to quality. Towards the end of last week holders of Constantinople Yerli opium showed more disposition to sell, and, failing buyers at reigning value, they practically forced off their stuff, in some cases at, as low a price as 7*s.* 6*d.* It is a noticeable fact that ever since the first reports of damage holders of Karahissar and Konieh opiums have maintained an exceedingly firm attitude. The chief dealers in these grades on this market absolutely refuse to sell a single case, which goes far to prove the sowings have suffered considerably. The news of large sales in Smyrna at former prices has reacted on this market, and quotations are now 7*s.* 8*d.* to 8*s.* for druggists, and about 8*s.* 8*d.*, f.o.b., for Zille Tokat talequale. It is now a practical certainty that the sowings are in a very bad way, and unless the spring sowings prove a success the output of opium in 1893 will be exceedingly small." From Smyrna our information is to the effect that "the market remains quiet here, and the advices from the districts of production are somewhat contradictory about the damage done by the severe frosts to the young poppy-plants. Owners of stock and 'bull' speculators affirm that, leaving out of the question the smaller winter sowings, the damage done to the crop amounts to over 40 per cent. The 'bears,' on the other hand, represent the sowings to have been the same as last year, and that the damage amounts to only 15 or 20 per cent. The fact seems to be that the late advance caused by speculators and holders was somewhat premature; for if the damage were really as considerable as some people want to make out, the exporters, and particularly the American dealers, would not have left the market in the present quiet and undecided state." This was on March 8, since when there has been a considerable change. The London market has been active, and at times excited, and considerable sales have been made. It is said that practically all the druggists' opium here has been taken out of the market, and is held for 10*s.* to 11*s.* per lb. We also hear that for old-crop fair quality shipping opium from 10*s.* 6*d.* to 11*s.* has been paid. Salonica is held for 12*s.*, and for Tokat the same price is asked. In Persian there has been no change; nearly all of that variety which is here is said to be of poor quality. A telegram has been received to day from Smyrna stating that 10*s.* 5*d.*, f.o.b., has been paid there for current manufacturing opium, which would indicate an advance of 1*s.* since yesterday.

POTASH-SALTS.—*Chlorate* is lifeless, at 9½*d.* per lb. for March, 8½*d.* for April, 8½*d.* for May, and 7¾*d.* for July-December. *Pernanganate* has been in good request lately. The makers require 62*s.* 6*d.* per cwt. for small crystals in quantities, and on the spot 65*s.* per cwt. is generally asked. It is stated that two of the German manufacturers have ceased offering anything for the present.

QUICKSILVER.—The importers' price remains 6*l.* 10*s.* per bottle, but second-hand holders are easier, and offer at 6*l.* 8*s.* per bottle.

QUININE.—On Friday last a sudden demand showed itself, mainly, it was reported, for export to America. On that day, and on the following days up to to-day, about 150,000 oz. German bulk, second-hand, were reported sold on the spot, at prices ranging from $8\frac{1}{2}d.$ to $9\frac{1}{4}d.$ per oz., closing with buyers, but no sellers, at the latter figure. The makers are all firm, and say that they do not care to sell at the present rates. In connection with this improved position the following report from New York, dated March 15, will be of interest:—"The consuming demand continues active, and is making up for the period of depression experienced in January and February. All indications point to a large consumption this spring following the hard winter we have gone through, and pill-manufacturers and distributors are disposed to take the bull by the horns, by buying at the comparatively low prices now prevailing. In spite of the assertion that available supplies are being contracted by the heavy demands of consumption prices do not improve, and many are disposed to attribute the continued depression to the fact that the American manufacturers, for reasons which are all-sufficient to them, have not yet seen fit to advance their quotations. Nevertheless, holders are not disposed to shade 18c., and very few of them would consider such a bid unless it was accompanied by an offer to pay cash. In fact, bids of $17\frac{1}{2}c.$ to $17\frac{3}{4}c.$ have been made for considerable quantities within the week without finding sellers."

SENNA.—There has been a further arrival of 132 bales Tinevelly senna from Bombay.

SHELLAC.—The spot-market closed very quietly last week with small sales of *Orange T.V.* at 95s. to 96s., and first *Button lac* at 127s. 6d. per cwt., both short prompt. For good *AC garnet* 88s. per cwt., short prompt, was paid early in the week. At auction 1,091 cases were offered, of which only 350 sold, with a sluggish demand, at a decline of 1s. to 2s. per cwt. on second orange. *Button lac* was irregular, fine qualities showing a steady market, while common grades were much lower. *Garnet* was held so firmly that no business could be done. The following prices were paid:—Second orange, unworked, livery to good bright, 93s. to 95s.; *button*, unworked, superior bloodlac, 135s.; resinous seconds, 85s. to 86s.; thirds, 72s. to 76s. per cwt. Market closes steady, with sales of orange lac, T.N., May delivery, at 96s. per cwt.

SPICES (VARIOUS).—*Tapioca* is in large supply at easy prices, and *Pearl tapioca* is likewise easier. *Arrowroot* sells quietly at $3\frac{1}{2}d.$ to $4\frac{1}{2}d.$ per lb. for medium to good St. Vincent. *Chillies* dull and considerably lower; 40 bags fine bright red *Sierra Leone* sold at auction, without reserve, at 41s. per cwt., while fair *Zanzibar* are offering at 50s. per cwt. *Pimento* is in small supply at $3d.$ to $3\frac{1}{2}d.$ per lb. for ordinary to good bright clean, showing no change in value. *Nutmegs* and *Mace* keep quiet but fairly steady. At auction 814 bags *Black pepper* were mostly bought in. Of *White pepper* 80 bags medium to good *Singapore* sold at $4\frac{1}{2}d.$ to $4\frac{3}{4}d.$, and 23 cases brought from $6\frac{1}{2}d.$ to $10\frac{1}{2}d.$ per lb. for fine bold to superior. The market generally remains flat, and there are sellers of *White Penang* at $3\frac{1}{2}d.$ per lb. on the spot.

STICKLAC.—A moderate business in good *Siam lac*, at the rate of 70s. per cwt., has been done recently. At auction 138 cases *Siam lac* were bought in, at from 80s. to 90s. for dark dusty to good clean. Of *woody Rangoon lac* 16 bags sold at 25s. per cwt.

TEA.—There is rather more life in the tea-market this week as a whole, but that is about all that can be said. Not much *Congou* is being offered in public sale, and importers are not showing any disposition to force off what *Monings* and *Kaisus* they still hold, but *Capers* are much in excess, and sold very cheaply again. *Indians* for price are unchanged, though there is, as usual this time of the season, a good deal of red-leaf tea, which does not meet with much favour and sells at comparatively low rates. The *Ceylon* offerings for the week have been very heavy, and have gone off quite as well as could be expected, considering dull trade and the approach of Easter. Broken *Pekoes* are splendid value, especially $9\frac{1}{2}d.$ to $10\frac{1}{2}d.$ teas, but there is a great scarcity of fine tea, and what there is, as in the case of a *Wootton Orange Pekoe* this week, fetches extreme rates.

TONQUIN BEANS.—There is very little offering, but the demand is by no means brisk.

THE LIVERPOOL MARKET.

ARSENIC.—Steadily creeping up, and value of white powder now 14l. per ton.

CALABAR-BEANS.—Seventeen bags, just landed, sold at 2d. per lb.

GINGER.—Further arrivals of new crop have taken place, and 50s. is now asked for good sound root.

OIL (CASTOR).—The flatness in this article is maintained, but one or two holders are exhibiting more firmness, declining to sell under $2\frac{1}{2}d.$ per lb., which is the value of good seconds *Calcutta*. First-pressure *French* is well held at $2\frac{3}{4}d.$ to $2\frac{1}{2}d.$ per lb. At auction 420 barrels (about 70 tons), lying at Liverpool, Manchester, and Hull, were sold, with good competition, at 23l. 2s. 6d. to 24l. 12s. 6d.

SEED (FENUGREEK).—Fourteen tons of ordinary *Alexandrian* have been sold at 7l. 15s.

TURPENTINE.—An arrival has taken place, and the value has fallen to 25s. 6d. to 25s. 9d. per cwt.

WAX (BEES').—Further business has been passing in *Chilian*, and second-hand parcels have been selling at an advance of 5s per cwt. on last week's values.

THE NEW YORK MARKETS.

(From our Special Correspondent.)

NEW YORK, March 15.

I HAVE to report a rather quiet drug-market at this moment, though general indications are favourable for the spring business. The steamer *Iumuri* has arrived with 72 bales of *Mexican sarsaparilla*, which has passed out of first-hands at prices ranging up to 8c.; and 50 bales ex *Orizaba* have been sold at $8\frac{1}{2}c.$, which is the figure asked for any further lots. The *Iumuri* also brought 105 bales *jalap*, which places that market in an easier position. *Jobbers* now quote 28c. to 33c., according to the quality of the root. Nothing is reported in *Senega-root* aside from a moderate jobbing business at firm prices. *Castor oil* has been advanced, and is now quoted at $14\frac{1}{2}c.$ to 15c. in barrels, and 15c. to $15\frac{1}{2}c.$ in cases. *Canada balsam of fir* has advanced, and now $\$3$ is quoted as being the bottom. *Cascara sagrada* is quiet and unchanged; it is reported that there is only one lot of any size in San Francisco. The *Vanilla* market continues firm, and the demand fairly brisk in a small way. *Gum chicle* has declined to 30c., and is dull at the moment. *Mexican saffron (Safflower)* has again moved up a peg, and 75c. is quoted here, though some small lots outside this city are said to be available at 60c. A nice lot of bright-coloured *Truxillo Coca-leaves*, recently arrived, is offering at 30c. Ordinary *Truxillo*, in sound state, can be had at 22c. *Oil of peppermint* is very quiet, but holders are firm in their views. *Shellac* dealers here and in Boston are having one of their customary bouts, and, in consequence, the prices are suffering, and there is a general feeling of weakness felt. *Jamaica ginger* is now coming to hand, but receivers are very firm in their views. The duty on *Hydrochlorate of cocaine* has been assessed at 50c. per lb. for some months, but a recent Treasury decision has reversed the previous decision, which reduced the import duty from 25 per cent. *ad valorem* to 50c. per lb., and now a duty of 25 per cent. *ad valorem* is to be assessed. In consequence, importers have withdrawn quotations, and domestic makers have advanced their quotations to \$5.50 to \$5.75. A change has also been made in the duty on *Chloral hydrate*, changing it from 50c. per lb. to 25 per cent. *ad valorem*.

THE SMYRNA OPIUM MARKET.

(Telegram from our Correspondent.)

SMYRNA, Wednesday evening.

WE have had an excited week. The weather is exceedingly unfavourable in the growing districts, and the market has in consequence become greatly excited. Large sales have been made at constant advances in price. The last figure paid for fair manufacturing opium was at the rate of 9s. 4d. per lb. f.o.b., an advance of 10d. per lb. upon the closing quotation of last Wednesday.



Memoranda for Correspondents.

In letters for publication correspondents are requested to express their views as concisely as possible.

Correspondents should write on one side of the paper only, and devote a separate piece of paper to each subject of inquiry.

The name and address of the writer should accompany all communications with, if desired, a distinctive nom-de-plume.

Justice to Western Australia.

SIR,—In your issue of January 14 last, under "Australasian News," a paragraph appears to the effect that "Queensland Wants a Pharmacy Act." As Queensland has had a Pharmacy Act in force for some years, and the note under review refers to Western Australia, I will ask you to be good enough to correct the information in your next. We are just on the opposite side of the continent to Queensland, and thousands of miles divide our capital, Perth, from that of Queensland, Brisbane; but as we are the youngest colony of the group to enjoy responsible government, although the second oldest in point of settlement, we are not much known as yet, and seem to get confounded with all the others.

I may add that we are making good progress with our Bill, and the Society is flourishing.

Yours very truly,

Western Australia, J. R. LAUGHTON, D.D.S., &c.,
February 13. Secretary and Registrar.

[We regret the slip in heading our paragraph.—ED. C. & D.]

Poisonous Stamped Medicines.

MESSRS. A. P. TOWLE & SON, 75 Back Piccadilly, Manchester, write to say that they notice some proprietors are altering their formula so as to enable grocers to continue the sale of their medicines. They wish to state that they have not made the least alteration in their formula, and their chlorodyne can only be sold by registered chemists. They label the bottles as the Act requires, and it is only necessary for chemists to add their address-labels.

SIR,—Would not the carton style of wrapping be best for poisonous proprietaries? Ordinary paper wrappers are hastily torn off, and away goes the retailer's name and address with it. I think Fellows, Kay, Powell, &c., should consider it.

Yours, &c.,

125 Hampstead Road, N.W., T. T. NICHOLSON.
March 20.

Aconite for Celery.

SIR,—The evident uncertainty as to the identity of the plant which, as reported in THE CHEMIST AND DRUGGIST, page 364, had caused the death of an unfortunate man at Marsham, led me to write to Mr. Beckett (the deceased's employer) for some of the plants in question. Before reading this paragraph I had never associated the appearance of aconite with that of celery, but I must confess to being staggered when I opened the parcel, kindly and promptly forwarded by Mr. Beckett, for the young shoots of the plants therein contained might readily have been mistaken by the unwary for small plants of celery. They are plainly the *Aconitum Napellus*, and, from the appearance of one enclosed herewith, I think you will agree with me that, in addition to the old danger of being mistaken for horseradish, we must admit that monkshood may also be readily mistaken by the careless for celery, especially when growing in rich, rank soil with the roots deep down.

Yours truly,

EDWIN NUTHALL.

[The resemblance is striking.—ED. C. & D.]

Kilner v. Lowenfeld.

SIR,—We shall be glad if you will kindly inform your readers that we are not the Messrs. Kilner above referred to, the firm of Kilner Brothers being a separate firm.

March 20.

Yours faithfully,

KILNER BROTHERS.

Re Ruth!

Cheer up, my worthy, "mournful" friend!—let not your heart be sad;

Your manly, "honourable amend" makes every reader glad. And if the dear young "widow Ruth" could only just have known

How anxious you have been before the Scotch Kirk to atone,

I'm sure that she would gladly join with all your friends and say,

"Enough! enough! we're satisfied, he's cleared himself to-day."

The "mother of Israel's future kings," with tender, loving heart,

Would in the court be first to say, "Dear friend, in peace depart."

We are glad to find that Scotland claims bright poets such as you;

Still in the steps of Scott and Burns your onward path pursue.

When business cares oppress the mind, and when the heart is sad,

They often find relief who strive to make some mourner glad.

Broad links of sympathy unite mankind one to another, And he's the happiest man who helps to cheer his downcast brother.

Kindest regards accept from me,

Yours most truly, W. B.

Mr. William Johnstone and the Institute of Chemistry.

SIR,—In your issue of March 18, under the heading of "New Facts and Fancies," there appears the following:—"The Institute of Chemistry has to pay 500*l.* of legal expenses as a result of expelling Dr. Johnstone from the membership. There was no glory to balance this drain upon the funds." As this statement is inaccurate and is liable to do me serious injury, and at the same time convey a false impression, will you kindly allow me to state that the Council of the Institute of Chemistry conspired an absolutely false charge against me (a charge they dare not repeat or put in print), and upon that false charge alone they passed a resolution that the secretary be ordered to remove my name from their register, and not that I should be expelled? Consequently, I still retain my certificate of membership and fellowship—a document which they tried their utmost to obtain possession of.

If I had been guilty of committing the charge made against me I should have been compelled to surrender, according to the by-laws, this absolutely worthless piece of paper, issued by an autocratic society, who have paid 500*l.* for me allowing them to remove my name from their register.

Yours truly,

WILLIAM JOHNSTONE,

One of the Ex-Fellows.

DISPENSING NOTE 3

Correspondents should consult "The Art of Dispensing" in regard to dispensing difficulties. Difficulties not explained therein may be sent to the Editor, who invites a general expression of opinion upon the under-mentioned topics.

Dosage.

SIR,—In translating directions "ʒj. 4tis horis," should the oz. be written as "two tablespoonfuls," or "—th part:" which in your opinion?

No. 3. (2/40.)

[The custom in England is to express the dose in the latter fashion, and the same in Ireland. This is almost the

invariable rule. In Scotland the dose would be given as "two tablespoonfuls." Of course, the system of translating definite quantities, such as 5ss. or 3j., &c., by indefinite quantities, like "tablespoonful" or "two tablespoonfuls," is not a sound one.]

LEGAL QUERIES.

Immediate information on pharmaco-legal matters is available in "Pharmacy and Poison Laws of the United Kingdom," Alpe's "Handy-book of Medicine-stamp Duty," and THE CHEMISTS' AND DRUGGISTS' DIARY, page 152 et seq.

259/1. *J. H.*—We fail to discover the paragraph you refer to. You are right in assuming that dilute nitric acid is not a poison within the meaning of the Act.

257/74. *T. V.*—The preparation would be liable to medicine-stamp duty in any case.

256/38. *Zemo.*—We do not understand why you assume that the vermin-killers you name can be sold by anyone. Some of them certainly can only be legally sold by registered chemists.

260/48. *E. W.* asks whether he can, without being interfered with by the "Royal College of Veterinary Surgeons," make use of the term "Canine Specialist"? We are inclined to think that such a description is more of an infringement of the Veterinary Surgeons Act than is the title "veterinary chemist"; but we cannot prophesy how the advisers of the, Royal College of Veterinary Surgeons might look at it, nor how a Court might view it if an action resulted.

260/27. *Subscriber.*—The use of the description "chemist" by an unregistered person on anything he may send out renders him liable to a penalty under the Pharmacy Act. You will find in "Pharmacy and Poison Laws," page 96, a case of a person fined for using a handbill about a patent medicine, on which the proprietors had printed his name as chemist. If the makers stamped the soap contrary to instructions you can certainly compel them to take it back, unless you have allowed an unreasonable time to elapse.

133/14. *A. G. G.*—Your labels render the tinctures liable to stamp-duty, because you expressly recommend them for certain complaints incident to the human body.

2/28. *P. J. H.*—We do not see how the occurrence of a clerical error at Somerset House proves that the Medicine Stamp Acts are incomprehensible. The Acts are clear enough. The practice of the Board of Inland Revenue in regard to them can only be ascertained by experience or from Alpe's "Handy Book." In this very instance of the Board of Health diarrhoea mixture, Mr. Alpe gives (page 101) the form of label permitted by the Board on an unstamped bottle. But he expressly remarks that "this label must be closely followed. Any further recommendation or the use of the possessive case renders the preparation liable to duty."

2/45. *Sloper.*—We do not see how the words "Saline salt" on a label can infringe anybody's rights. Nor should we suppose many persons will envy your use of such a tautological description.

22. *Qualified* wishes to know whether it is right for him to allow a customer of his to have from 3j. to 3ij. of laudanum daily. The bottle is properly labelled, but she, instead of taking it home with her, drinks it all in the shop, and leaves the bottle for further use.

[We presume our correspondent means—Is he legally right in permitting the consumption of the laudanum on his premises? We think that would depend on whether a Court should consider that the laudanum was taken as a beverage

or as a medicine; but the case is so exceptional that it is hardly likely to be raised.]

2/25. *J. R. R.*—Apprenticeship indenture forms are supplied through any stamp-office. They can be got from most chief post-offices. They are quite suitable for chemists' businesses, and can be filled up, signed, and become operative without a solicitor's aid. The stamp-duty is 2s. 6d.

2/70. *Dens.*—You cannot now get registration as a dentist by any other means than by going through the curriculum and passing the examinations; and without registration you are liable to a penalty if you use the description "dentist." We should think the use of the description "dental surgery" on your window would very likely be regarded as an infringement of the Act, but it is impossible to say how a Court might decide.

140/35. *J. B. F.*—Neither sugar of lead nor sulphate of copper is a scheduled poison. No chemist ought to ask such a question. Why not get a copy of "Pharmacy and Poison Laws" and make yourself familiar with the Act?

3/5. *Country Chemist.*—We cannot make trade-mark searches for correspondents, but we should think it unlikely that anyone could have proprietary rights in the term "sanitary fluid."

2/59. *Rheum.*—(1) We must decline to satisfy your curiosity. (2) We do not know. Why not ask the proprietors? (3, 4, 5) A proxy to vote at more than one specified meeting would require a 10s. stamp instead of a 1d. one. We do not think a shareholder could sign away his right of voting for an unlimited period. We do not understand some of your other queries, and if we did we could hardly afford space to reply to all explicitly. You had better get Jordan's "Handy-book on Joint Stock Companies" from Jordan & Sons, 120 Chancery Lane, 3s. 6d.

2/18. *T. D. V.*—Articles imported from Paris do not need to be stamped "Manufactured in France" unless there is some English word on them, or other indications that they are or may be of British origin.

MISCELLANEOUS INQUIRIES.

The Editor replies to queries of general interest, in the order in which they are received. Replies are inserted according to the space available. Postal answers cannot be supplied.

Back numbers, containing formulae, educational or other specific information can be obtained from the Publisher.

243/68. *W. A. W.*—(1) **Balsam for Colic in Horses.**—As far as we can make out, this balsam is a mixture of linseed oil and crude oil of tar—say, 3 parts of the former to 1 of the latter. (2) The preparation which you suggest is somewhat complicated, but it should be very effectual for colic. You must not use methylated spirit in the preparation, that being illegal. For the immediate relief of colic aloes is valueless. (3) We have not the formula. (4) Have you consulted "Veterinary Counter Practice"?

249/3. *America.*—**Foaming-liquid for Beer.**—Your preparation is a 1 in 8 tincture of quillaia. The spirit is a mixture of S.V.R. 1 part, and water 2 parts.

262/69. *Soaps.*—**The Musk Perfume for Dry Soap** is a spirituous solution of the artificial musk made by acting upon oil of amber with nitric acid. A solution of Musk-Baur is much better and goes further. Crude carbolic acid is good enough for household soap. Watt's book on soap-making may suit you.

248/4. *North Cotswold*.—**Dental Anæsthetic**.—The sample which you submit appears to be made up as follows:—

Amyl acetate	..	..	..	..	5ss.
Chloroform	..	..	..	..	3j.
Rectified spirit	..	..	..	..	3iiss.

Mix.

258/1. *Bromrycham*.—We could only guess at the composition of the plaster unless a very thorough analysis were made of it, and there does not appear to be sufficient interest attached to it to warrant that.

249/32. *Redial*.—**Shampoo-powder**.—The 2*d*. packet contains:—

Dried carbonate of soda	..	..	..	5iss.
" curd soap	..	..	..	5iss.
Solution of orange	..	..	..	Sufficient to colour.

Mix.

This for a pint of warm water.

207/19. *J. W. A.*.—It is impossible to say what the colour is, but it is not material, and you can easily imitate it. The active ingredient is acetanilide.

263/18. *Rad. Rhei*.—No; *Rhapontica* is not in the neighbourhood of Banbury. "Rha" means "rhubarb"; "Pontica," from the Pontus Euxinus, or Black Sea. In former times the Black Sea rhubarb, afterwards known as Turkey rhubarb, was so called from the trade-route by which it was brought into commerce, to distinguish it from *Rha-Barbarica*, the kind which reached Europe through Muscovy.

256/72. *W. H. R.*.—Straw-hat polishes are solutions of shellac, gum, &c., thus, in methylated spirit, coloured as re by aniline dyes. The Latin name for horehound is *Marrubium*.

259/33. *Carboy*.—You say you have tried several red solutions for your carboy, but only mention one. This is not the proper way to get a satisfactory reply. In our opinion the best, brightest, and prettiest colour of the red class is the cobalt pink. It is somewhat expensive. To make the colour take any quantity of cobalt chloride between 2 and 8 oz. to the gallon of distilled water. Dissolve in half the water and add strong solution of ammonia until the precipitate at first formed redissolves. Then make up to the required volume with distilled water, and after standing several days decant the clear solution. On exposure to light the solution deposits; but after six months it may again be decanted, when it will keep bright for a lifetime and improve. Cheap but transient colours may be obtained by adding liquid cochineal or solution of rosein to a sufficiency of distilled water.

249/35. *Jacque*.—Diphenylamine is insoluble in water but it is soluble in sulphuric acid of the strength indicated. In applying the test you must use the residues merely moistened with water, or not at all. You seem to have added enough water to throw the diphenylamine out of solution.

260/42. *Jean Blanc*.—Horn is polished by means of a wheel made up of discs of calico, which revolves with extraordinary rapidity. A butcher is not at all likely to imitate this polish, but he may try, beginning with putty powder and olive oil, then with dry soft cotton, and finally with chamois. We wish him luck of his job, but he will be tired of it before he is done.

260/39. *Subscriber* (Glasgow).—**Lemon-squash**.—Make a tincture of lemon-peel (2½ oz. of dry or 4 oz. of fresh to a pint of spirit). With each pint shake up to 2 oz. of oil of lemon, and after a day filter. Add 4 oz. of this tincture and the same of tartaric acid to each gallon of syrup.

260/53. *Verax*.—If young and healthy people are troubled with **Thin and Weak Hair** the best thing they can do is to have it cut or trimmed by the barber once a month. It must be carefully combed and brushed morning and evening, especially in the case of girls, who are apt to be careless in this matter; and for an occasional dressing the following is good:—

Sweet almond oil	..	..	..	5j.
Tincture of cantharides	..	..	..	5ss.
Bay rum	..	..	..	5j.
Otto of rose	..	..	..	ʒiij.
Rectified spirit to	..	..	..	5iv.

Mix.

Our experience is that most young people of the tender sex who are vexed about their hair being thin are those who give it least attention. If a thing is not worth taking care of, it is not worth having. Dr. Tom Robinson writes a half-crown book on the hair, which is published by Hirschfeld Brothers.

133/32. *Scientia*.—In presence of sulphate of magnesia or soda, and after very long exposure to sunlight, potassium iodide is decomposed only to a slight extent. A little hydriodic acid is formed, and from this iodine is liberated. But the amount is very trifling.

260/34. *Buy None*.—**Malt Extract** contains lactic bacilli in very large number, and unless the extract has been evaporated to a certain consistence it is liable to undergo apparent spontaneous fermentation, especially when made into emulsion with cod-liver oil. The addition of chloroform and aromatics prevents this, and the extract should in no way be diluted.

261/61. *Carbolic*.—Your second letter was received after the pages were in print.

261/60. *Depilatory*.—See THE CHEMIST AND DRUGGIST, August 27, 1892, page 351.

261/13. *Lumen*.—There appears to be little the matter with the pills, which certainly contain a sulphide. How can we judge from a grain or two of a pill whether it has decomposed or not, especially when we have no information as to what the excipient is? Have you written to the maker?

261/34. *S. C. H.*.—To remove the **Paraffin Stain from a Carpet** try fuller's earth. Sprinkle it pretty freely over the stain, cover with a piece of brown paper, and pass a hot flat-iron over the paper. Brush off the earth, sprinkle it over again, and repeat.

261/46. *Subscriber* (Aberdeen).—**Chlorodyne Lozenges** are not made with chlorodyne, but with the colourless ingredients—such as chloroform, morphine, and peppermint oil. The basis to use is the ordinary B.P. one.

261/18. *Wills*.—**Ginger-beer** should be carefully strained from the yeast, otherwise the spores get through the strainer, and in time set up fermentation again. This is prevented to some extent by the addition of 10 grains of salicylic acid to the gallon.

263/24. *Syphilis*.—(1) Dr. Hargreaves devotes a chapter of his book to infantile syphilis. (2) **Baking-powder**.—THE CHEMIST AND DRUGGIST, October 22, 1892, page 622.

263/19. *W. H.*.—**Composition-powder**.—THE CHEMIST AND DRUGGIST, November 26, 1892, page 788.

1/69. *Birmingham*.—We have not published the formulæ, nor are they available for publication.

1/45. *Zephyn.*—**Dutch Drops.**—The formulæ for this differ more or less slightly. One of the best is:—

	Parts
Balsam of sulphur.. .. .	5
Oil of turpentine	10
Huile de cade	15

Mix.

1/34. *G. D. Cox.*—**Mixture for Kidneys:**—

Acetate of potash.. .. .	℥j.
Nitrate of potash.. .. .	℥iss.
Oil of wintergreen	℥iv.
Spirit of chloroform	℥ss.
Tincture of buchu	℥iss.
Infusion of liverwort	℥j.

Dissolve the salts in the infusion, and the oil in the spirit; add the latter to the tincture, and pour into the infusion.

Dose: ℥ss. to j. thrice daily.

1/30. *Ice Cream.*—The basis of ices is a mixture of milk, cream, and sugar, or of milk, yolk of egg, and sugar. The latter, *e.g.*, is the yolk of six eggs; milk, 2 pints; sugar, $\frac{1}{2}$ lb. Beat up the yolks, and add the milk gradually, then the powdered sugar. Dissolve the sugar by slow heating with constant stirring. Avoid boiling. This does well enough for vanilla or lemon ice. Flavours and colours have to be added according to the kind wanted; then all you have to do is to put the flavoured basis in an icing-machine.

1/65. *Tal.*—(1) The articles will be inserted as we find space for them. (2) **Dispensing for Doctors.**—See THE CHEMIST AND DRUGGIST, July 30, 1892, page 173. (3) **Liquid Dentifrice.**—See THE CHEMIST AND DRUGGIST, December 3, 1892, page 820.

2/30. *Cyclist.*—Does the formula in THE CHEMIST AND DRUGGIST, February 25, page 293, not suit you?

2/13. *Trimula* wants to know the best method for the Estimation of Camphor in camphorated oil—that is, how would a public analyst ascertain whether a sample of lin. camph. was B.P. or not? We do not know a best way, nor what a public analyst would do in the circumstances, but we should judge of the quality of the article by attention to several factors: *First*, the specific gravity should not be below 0.935 nor much above that—olive oil being 0.915, and camphor 0.995. *Second*, by boiling a known volume of the oil the camphor and but little of the oil would be dissipated. The cooled residue would indicate how much camphor was in the oil. *Third*, the camphor might be washed out of the oil with rectified spirit. These are rough but sufficiently safe methods for telling whether an oil is genuine or not. Of course it may be necessary to determine if olive oil has been used in making the preparation.

1/5. *Retail.*—Twenty per cent. upon the wholesale prices is necessary to cover the working expenses of a retail shop, and that is generally considered to be the profit which should be taken from medical men. It leaves little or no margin, but the druggist looks for advantage otherwise.

INFORMATION WANTED.

The Editor invites, on behalf of inquiring subscribers, post-card replies to the following:—

Will some correspondent say what is known as "Oil of Peter—or Petric?" What is sold for it? Half-and-half of same with turps should be black or very dark and slightly syrupy. "Gray's Supplement," 1824, fol. 233, gives it: "Rock oil—petroleum—it floats"; but this is not the article. Query Petrol. barb.? A. A. (261/14.)

253/7. Formula for "Basham's Mixture."

262/52. Agent for "Phyllips's Cod-liver Oil Emulsion."

INFORMATION SUPPLIED.

243/36. *Mist. Calc. Chlor. c. Ferro.*—I have much pleasure in appending the full prescription for mist. calc. chlor. c. ferro. as written by Dr. Noble Smith. The mixture contains about 2 grains of calcium chloride in each fluid ounce.

Mistura Ferri.

Tinct. ferri mur. P.L.	℥j.
Aque camph.	℥vj.

Mix.

Spirit, ammon. arom.	℥j.
Aque camph.	℥vj.

Mix; then mix both together.

Liquor Calcis Chlor.

Cretæ ppt.	℥v.
Acid. hydrochlor.	℥vj.
Aq. dest.	℥vj.

Mix the water and the acid gradually, then saturate with the chalk; let it settle, and then pour off the supernatant fluid, which preserve. Test its neutrality.

Mistura Calcis Chlor.

Liq. calcis chlor.	℥ij.
Aque ad	℥ij.

Mistura Calcis Chlor. c. Ferro.

Mist. calcis chlor.	℥vj.
Mist. ferri ad	℥xxij.

Dover, March 17.

J. F. BROWN.

Mr. Edward J. Clark (Malvern Wells) also replies to the same effect; but the mist. ferri recipe given by Dr. Noble Smith on his prescription is:—

Tinct. ferri mur. P.L.	℥j.	MIX. } MIX.
Aque camph.	℥ij.	
Aq. destil.	℥ij.	
Spt. ammon. arom.	℥j.	MIX. }
Aq. camph.	℥vj.	

Mr. R. H. Parker (Maida Valc) likewise replies, and adds that Dr. Noble Smith supplies a lithographed copy of the formula to any pharmacist who asks for it. We are also favoured with a reply from Mr. Whigham, of Brook Street, W.

113/39. **Black Oil for Leather.**—S. says, "Is not this oil a petroleum residue, sold as 'Molliscorum,' and under other names, for softening leather?"

Cloudy Ammonia.—North Cotswold (248/4) supplies the following for bath, toilet, and general purposes:—

Liq. ammon. fort.	℥vss.
Aq. Coloniensis	℥ss.
Sapon. animal.	℥ij.
Aq. ad	℥xij.

M.

Next Week.

Meetings, &c., to be held, and business to be transacted thereat. Suitable notices will be inserted in this section if received by the Editor on or before Wednesday.

MONDAY, MARCH 27.—*Chemical Society*, at 8 P.M.—Annual meeting: President's address; election of office-bearers and Council.

THURSDAY, MARCH 30.—*Glasgow Pharmaceutical Association.*—Discussion on "Ginger-wine Essence."

THE LIME-JUICE exported from Jamaica in the year ending March 31, 1891, amounted to 53,884 gallons, of which 44,492 gallons went to the United Kingdom, 110 to Canada, and 9,282 to the United States. The average valuation in the export list is 10d. per gallon, but the price for the raw juice ranges from 9d. to 1s. 3d. The concentrated juice sells according to the percentage of citric acid it contains.

Pears' Soap



(25 inches high.)

These celebrated Statuettes are supplied free to Retail Buyers upon conditions to be obtained on application to

A. & F. PEARS, Limited,

71-75 New Oxford Street, W.C.

THE SUMMER IS COMING.

Do not fail, therefore, to apply for quotations to the CHEMISTS' ASSOCIATION (LIM.) for the following goods:

**WASHING GLOVES (ALL KINDS),
SELTZOGENES,
SPONGE BAGS AND BATHING CAPS**
(SOME SPECIALLY CHEAP),

**PERFUMES, PERFUME ODORATORS,
SALINE, "MAG. CIT."
EXT. GLYCERINE AND CUCUMBER, &c., &c.**

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CURTAIN ROAD, LONDON, E.C.

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SUSPENSORY BANDAGE

TO RECOMMEND IS THE

"SYRACUSE,"

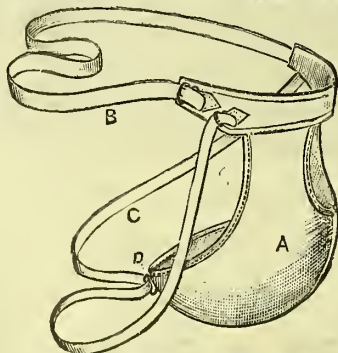
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3 SIZES—Large, Medium, and Small.

Made in Seven Qualities, to suit all
Markets.

Each Bandage is ordered separately, with
Printed Guarantee.



Each Bandage bears a Guarantee
to give satisfaction to wearer, or
money returned at our expense.

COTTON POUCHES.

Nos. 10	16	21
6/6	12/	18/ per doz.

SILK POUCHES.

Nos. 26	31	34	36
24/	30/	48/	72/ per doz.

We call attention to the fact that our Bandages are advertised in all the leading Athletic papers, and are largely used by Athletes of all kinds. We would strongly recommend all Chemists who require a first rate Bandage, and who wish to give satisfaction to their Customers, to hold stock, which will enable them to supply our Bandages when asked for.

May be obtained from all leading Druggists' Sundries Houses throughout the Country, or from the
WELLS MANUFACTURING CO. (H. C. Quelch), LUDGATE SQUARE, LONDON, E.C.

WYETH'S BEEF JUICE.

A liquid preparation of the Choicest Beef, containing the Nutritious Albuminous principles in an unaltered and soluble form.

Because WYETH'S BEEF JUICE is Pleasant and Agreeable to the taste.

Possesses five times more nourishing properties than other similar preparations.

Nutrient and stimulant properties so proportioned that it can be retained by the stomach in extreme cases of debility.

Two-ounce bottle contains all the Nutritious Albuminous principles of three pounds of clear lean meat.

Because these and many other points of superiority have been brought to the attention of Medical Men, Nurses, and Hospitals.

Because they have proven the claims *TRUE*, the demand for WYETH'S BEEF JUICE has become constant, and constantly increasing throughout Great Britain.

For the information of the

RETAIL CHEMIST

who has not already stocked WYETH'S BEEF JUICE we make this announcement.

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SELECTED DRUGS, PURE CHEMICALS, & PHARMACEUTICAL PREPARATIONS

PRICE LIST ON APPLICATION.

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Almond Oil.	Glycerine.	Herbs & Extracts.	Gums.
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Is unirritating to and rapidly absorbed by the skin, thus making it particularly valuable for the application of such drugs as Mercurials, Iodide of Potassium, Iodoform, &c., &c.

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2/9..Ditto ditto	21/	4/6..Mathay Caylus	35/	9/..Laville's Gout Tinoture	81/	7/..Elixir Ferrug.	65/
2/9..Anbergier's Syrup	27/	4/6..Chassalng's Wine	39/	9/..Pills	78/	2/9..Rabuteau's Syrup Ferrug.	24/6
1/9..Pâté	15/	2/9..Pills	24/	1/11..Papier Fayard	6/9	4/..Racahout des Arabes	31/
6/8..Bay Rum	57/	4/6..Olin's Dragées Bromide Cam.	45/	2/3..Ditto	13/6	4/8..Reynal's Bougies	38/
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2/..Belloe's Charcoal	15/	3/..Ditto	24/	4/..Ditto	24/6	4/6..Capsules	38/
1/9..Lozenges	15/	2/..Epic's Cigarettes	13/6	1/9..Pâté d'Aubergier	15/	9/..Syrup	90/; 4/6, 42/
4/6..Blancard's Pills	32/	4/6..Elixir de Coca (Mariani)	48/	1/9..de Berthé	15/6	1/6..Star Paper	11/
2/6..Ditto	18/	2/9..Flon's Syrup	23/	2/9..de Coca Mariani	25/	1/9..Vallat's Pills	14/6
4/6..Bren's Injection	27/	Gayetty's Paper		1/9..de Georgé	14/6	2/9..Ditto	23/
4/6..Bugeand's Wine	36/	2/3..Graules Arsen. Acid.	13/6	1/11..Ditto	9/	4/6..Veloutine (White, Pink, Oim.)	28/
3/6..Bully's Vinegar	30/	2/9..Irou	14/6	1/6..de Nafé	13/6	3/6..Ditto ditte	22/
2/..Ditto	14/6	2/9..Soda	15/4	1/9..Regnaud	14/6	2/9..Vichot's Trochisques	22/
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COMPRESSED CHLORATE of POTASH. CHLORATE OF POTASH & BORAX.

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Dr. Rooke's SOLAR ELIXIR	...	...	...	2	9	25	0
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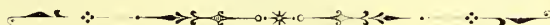
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THE CHEMIST & DRUGGIST

APRIL 29, 1893.



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STRAITS SETTLEMENTS,

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A purely vegetable ferment, which combines digestive, tonic, and antiseptic action. It is superior to Pepsin and Pancreatin, as it digests and peptonises albumen in acid, alkaline, and neutral media. (See opinion of Medical Press.)

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Albumen of fresh Beef predigested by Papain. It is the most concentrated form of Peptone. It contains 92.42 % albumen in the form of Peptone and Albumose. (See *Lancet*, April 4, 1891, p. 781.)

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The most efficient analgesic. Relieves pain in Neuralgia of all kinds Sciatica, Lumbago, Locomotor Ataxy, Chorea, Cephalalgia, and Rachialgia in Influenza, &c. (See published reports by Professors Frazer and Dujardin-Beaumetz, and other authorities.)

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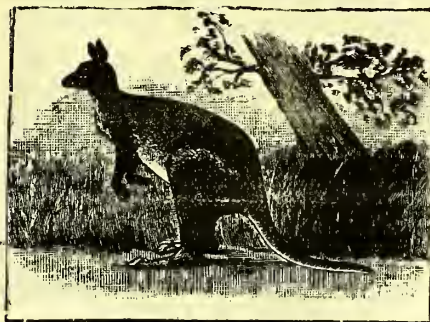
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We desire to point out the special advantages which the sale of our "Acme" Weed Killer affords the Trade.

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WHITE, RED AND YELLOW

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THE "PURIFIED"
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For Wounds of all kinds in all animals.
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For Anointing in bad Lambing and Calving.

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Cleanses and Cools the Blood and System.
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Cures Bad Cleansing & prevents Milk Fever.
Price 12s. per dozen Packets.

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The People's Embricative Balm for Sprains, Muscular Weakness, Rheumatism, Lumbago, Cramp, Sore Throat from Cold, Sciatica, &c., and all Aches, Pains, & Soreness.
Send for "Day's Oil of the Night" terms, framed to prevent CUTTING.
Chemists can have a Single Bottle direct. Price 1/1½ & 2/9 per Bot.
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For Kicks, Cuts, Bruises, Sore Withers, Swellings Strains of Ligaments and Tendons, Saddle Galls, &c. It rapidly relieves Straining and Pain after Calving and Lambing, and is the remedy for Swollen Udders and Sore Teats.

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For Fret, Colic, or Gripes in Horses, Hoven or Blown Sheep, and General Debility in Stock; of exceptional value for Colds, Chills, Scour, Diarrhoea, and weakly Lambs and Calves.

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For Colds, Indigestion, Costiveness, Yellows, Surfeits, Loss of Cud, Pleurisy, Hide-bound, Red Water, &c. Admirably adapted for cleansing and checking feverish symptoms in Cows and Ewes after a bad time of Calving or Lambing.

Price: for Cows, 13s. per doz.; for Ewes, 3s. 6d. per doz.

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For Husk or Hoarse in Heifers, Calves, Sheep, and Lambs, also Tape-worms in Tegs. No parasite can exist in the windpipe or air-passages after the blood has been impregnated with this worm-destroying medicine.

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Somewhat less refined than **CREOLIN**, the virtues of which are

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SHOULD BE RECOMMENDED BY THE CHEMIST EVERYWHERE WHO DESIRES TO SUPPLY ONLY RELIABLE ARTICLES.

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(ABBREVIATED).

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s. d.		s. d.
0 6 ..	Sixpenny Bottles } (bottles included)	4 0 per doz.
1 0 ..	Shilling ..	7 0 ..
3 6 ..	1-gall. Iron Drums (drums included) ..	2 6 each
6 0 ..	1-gall. Drums ..	4 6 ..
11 6 ..	2-gall. " ..	8 6 ..
28 6 ..	5-gall. " ..	20 0 ..
55 0 ..	10-gall. " ..	38 6 ..
Per gall.		
6 0 ..	20 and 40 gall. Casks (casks free, not returnable)	3 6 per gall.
1 1½ ..	UNIVERSAL PRAEATOR PRAEATOR (in bottles) ..	8 6 per doz.

Sanitary Powder.

1 0 each	Canisters, in boxes of 1, 2, or 3 doz. ..	7 0 per doz.
0 6 ..	" ..	4 0 ..

(Also in Casks and Bags.)

Disinfectant (Brown) Soap or Household (White) Soap.

No. 1 QUALITY.—(In 1-lb. Bars, papered.)

Per cwt.		
31 6 ..	In 1-cwt. Boxes ..	28 0 per cwt.

(Also in Small Packages.)

No. 2 QUALITY.

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25 6 ..	In 1-cwt. Boxes ..	22 6 per cwt.

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Triple Milled Toilet Soaps.

Elegant Tablets for the Toilet, of finest quality, containing the Antiseptic Properties of "Jeyes' Fluid."

Per box.		
1 6 ..	Perfect Purifier, in Boxes of 6 Tablets ..	1 0 per box.
1 6 ..	Coal Tar, per Box of 6 Tablets ..	1 0 ..
2 0 ..	Old Brown Windsor, in Boxes of 12 Tablets ..	1 6 ..
2 6 ..	Toilet (Scented), in Boxes containing 6 Tablets ..	1 8 ..
2 6 ..	Sublime Toilet (Unscented) in Boxes of 6 Tablets ..	1 8 ..
3 0 ..	Sublime Toilet (Scented) ..	2 0 ..
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Toilet Preparations.

1 0 each	Tooth Powder, in Metal Boxes ..	7 0 per doz.
1 0 ..	" Soap ..	7 0 ..
2 0 ..	Dentifrice Water, in Bottles, with Sprinkler ..	15 0 ..
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To any person who contracted Influenza, Coughs, Colds, Catarrh, Asthma, Bronchitis, Sore Throat, Hoarseness, Loss of Voice, Throat Deafness, Croup, Whooping Cough, or any disease caused by taking cold after having used the CARBOLIC SMOKE BALL according to the printed directions.

Many thousand Carbolic Smoke Balls were sold on these advertisements, but only three persons claimed the Reward of £100, thus proving conclusively that this invaluable remedy will prevent and cure the above-mentioned diseases.

One CARBOLIC SMOKE BALL will last a family several months, making it the Cheapest Remedy in the World at the price—
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The CARBOLIC SMOKE BALL will be refilled and returned, post free, the same day, on receipt of Money or Postal Order for 5s.

THE

CARBOLIC SMOKE BALL CO., LD.

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To the person who purchases a Carbolic Smoke Ball and afterwards contracts any of the following diseases, viz. :—

COUGHS, COLD IN THE HEAD, COLD ON THE CHEST, INFLUENZA, CATARRH, ASTHMA, BRONCHITIS, SORE THROAT, HOARSENESS, THROAT DEAFNESS, LOSS OF VOICE, LARYNGITIS, SNORING, SORE EYES, DIPHTHERIA, CROUP, WHOOPING COUGH, NEURALGIA, HEADACHE,

Or any disease caused by taking Cold, while using the Carbolic Smoke Ball.

This offer is made subject to conditions to be obtained on application, a duplicate of which must be signed and deposited with the Company in London by the applicant before commencing the treatment specified in the conditions.

This offer will remain open only until 31st March, 1893.

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LONDON DEPOT—2 BEECH STREET, E.C.

"BENZINE RECT." JACKSON'S.

SIXPENNY & SHILLING SIZES,
4s. and 8s. per dozen.

Special care is taken in
selecting good Bottles
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H.R.H. PRINCE ALBERT'S CACHOUX.
SOLD ONLY IN BRASS BOXES, at 4/- per dozen.
THE FINEST BREATH PERFUME IN THE WORLD.
Dainty morsels in the form of tiny silver pellets, which dissolve in the mouth and surrender to the breath their hidden fragrance.

ADHESIVE,
TENACIOUS,
AND KEEPS WELL.

JACKSON'S LIQUID GLUE.

SIXPENNY and SHILLING Sizes, at 3/6 and 7/- per doz.
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SOLE PROPRIETORS OF THE FAMOUS "GLENALLAN" PURE MALT WHISKY.

Per doz. **42/-** Per doz. THE CREAM OF SCOTCH BLENDS. Per doz. **42/-** Per doz.

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**DISTILLERS, FOREIGN WINE AND SPIRIT MERCHANTS, AND METHYLATORS,
ALLHALLOWS' LANE AND BARTHOLOMEW CLOSE, LONDON, E.C.**

Quotations for **S.V.R.** Methylated Spirit and Finish on application.

FINEST ORANGE WINE FOR QUININE.

**JAMES
BURROUGH, S.V.R.**

CALE ST., CHELSEA, S.W.

and Methylated Spirit

AT LOWEST PRICES.

WRITE FOR QUOTATIONS

CAUTION!

SPECIAL NOTICE TO THE TRADE

LION OINTMENT & PILLS.

DEACON v. BURGESS.

In the High Court of Justice, Chancery Division, on Saturday, December 17th, Mr. Justice Kekewich, in delivering judgment, said "that it will be sufficient, I think, and I am sure quite safe now to say that the plaintiff (Mr. H. J. Deacon), who certainly has not proved his knowledge of the genuineness, but who has clearly indicated his ignorance, and who is attempting to sell as genuine medicine that of which he is really ignorant." N.B.—A full report of the Judgment appeared in THE CHEMIST AND DRUGGIST, December 24 last.

CHEMISTS ARE PARTICULARLY REQUESTED TO ORDER

E. BURGESS, JUNR.'S, LION OINTMENT AND PILLS,

And to see that the Label bears Address,

59 GRAY'S INN ROAD, W.C.

As these are the ONLY GENUINE Goods, and this fact will be EXTENSIVELY ADVERTISED THROUGHOUT THE KINGDOM.

The Trade is respectfully requested to refer to the issues of "THE CHEMIST AND DRUGGIST" of December 10 and 17, and to read the Statutory Declaration made by E. Burgess, Junr., before the Lord Mayor of London. E. B., Junr., is the only person living with the knowledge of method of manufacture of these Remedies, and all statements to the contrary are untrue.

STARTLING INNOVATIONS

IN THE

VARNISH TRADE.

SPLENDID QUALITY.

LOW PRICES.

ONE-GALLON CANS FREE.

SAMPLE BOARDS AND PARTICULARS ON APPLICATION TO

PINCHIN, JOHNSON & CO.

OIL, COLOUR, AND VARNISH MANUFACTURERS,

23 BILLITER STREET, LONDON, E.C.

Telegrams—"PINCHIN LONDON."

Telephone No. 2241.

GLASS BOTTLES.

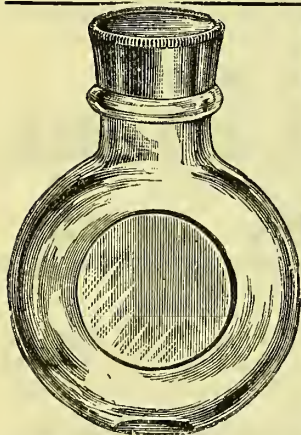
TO WHOLESALE AND EXPORT BUYERS.

DISPENSING BOTTLES of best quality, in White Flint or all the best and newest tints. **VIALS**.—White Flint or Coloured, in all shapes and sizes. **FEEDING BOTTLES**.—Plain mouths or Screw Stoppers, in White or Green Flint. **LIME CREAMS AND KALIS** of all sizes. **ESSENCE BOTTLES** of every description, Plain or Stoppered. **MALT EXTRACT BOTTLES**, in Actinio Green, Amber, Dark Blue, or White Flint.

TO FOREIGN AND COLONIAL BUYERS.

Having recently erected spacious Warehouses we are enabled to give special attention to packing Goods for Export. Only experienced Packers employed.

E. A. HEARN & CO., WHOLESALE & EXPORT GLASS BOTTLE MANUFACTURERS, LONDON, E.
ECLIPSE CLASS WORKS, CHATSWORTH ROAD, CLAPTON, LONDON, E.



R. H. BARRETT,

Flint Glass Bottle Works,
THE OVAL, CAMBRIDGE HEATH, LONDON, E.

For Beauty, Cheapness, and Efficiency R. H. BARRETT'S

WATCH SMELLING-SALT BOTTLES

EXCEL ALL OTHERS IN THE MARKET.

The Caps are all fitted with **INDESTRUCTIBLE WASHERS**, to resist the action of Ammonia and retain the strength of the Salts.

Price, assorted white and coloured, 10/6 per gross (in 5-gross lots).

Chemists' and Perfumers' Bottles in great variety, Plain or Stoppered

Telegraphic Address—"FOURPOND LONDON." (1)

GLASS BOTTLES

GOOD AND CHEAP.

SPECIAL PACKAGE for the New Year, 1893,
containing—

	s.	d.
1 GROSS 8-OZ. BOTTLES	9	0
2 " 6-OZ. "	18	0
1 " 4-OZ. "	8	0
PACKAGE	1	0
	£1	16 0

The New Shape with rounded edges, or the ordinary shape, either plain or graduated.

The above "Special Package" is sent, Carriage Free, to any part of England.

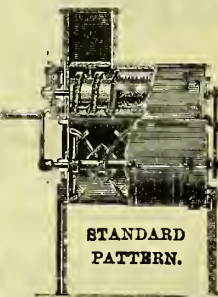
SAMPLE BOTTLE SENT FREE ON APPLICATION.

I. ISAACS & CO. Glass Bottle Manufacturers,
25 Francis St., Tottenham Court Rd, LONDON, W.C.

Established 50 Years. Bankers London and Westminster Bank

From Stock
in London or
direct from
the Works.

Use GARDNER'S Patent 'RAPID' SIFTERS & MIXERS

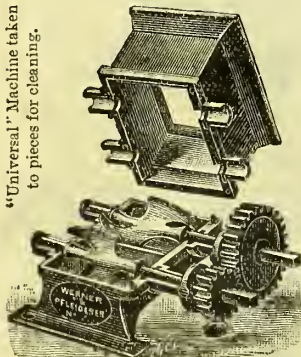


For Sifting and Blending
every kind of Dry
Powders.

New Illustrated Catalogue on
application to

WM. GARDNER,
Engineer, &c., Gloucester.

"Universal" Machine taken
to pieces for cleaning.



Size 3, Type I., for 1-lb. Mass.

THE "UNIVERSAL"

Kneading & Mixing Machine,

Used by all the largest Pill Makers.

SUITABLE ALSO FOR

ointments, powders,
and masses
of any
Consistency.

PILL MASSING MACHINES.

PILL
PIPERS,

CUTTERS,

ROUNDERS, COATERS,

"SPIRAL BRUSH"

POWDER-SIFTERS

(WITH INTERCHANGEABLE-SIEVES),

And every Accessory for the Pill Room.

WERNER & PFLEIDERER, 117 Queen Victoria St., E.C.

Contractors to the War Offices of all the Great Powers and other Governments.

MISSING WORDS!

Neither Shipper, Wholesaler, nor Retail Chemist can * * * * to do without SHIRLEY BROTHERS. When buying any lines connected with Chemists' goods (patent medicines excepted), drop a letter to Shirley's for quotations, otherwise you will be "—— WISE and —— foolish."

SHIRLEY'S A1 MENTHOL CONES.

1d. Vase or Pedestal, 3 doz.	gross.	No.
on card	7/-	8P. 6d. Acorn, Boxwood
1d. Bottle	6/6	112. 6d. Draughtsman, "
2d. Pedestal	14/-	40. 6d. Watch, "
	doz.	14N. 6d. Large Pedestal, "
3d. " 1 doz. on card	1/10	117. 6d. Monster, Varnished
4d. " " "	2/6	Wood

3/3	No.	doz.
3/3	111. 1s. Acorn	5/-
3/3	17F. 1s. Draughtsman	5/6
3/3	9CR. 1s. Reversible	4/6
3/6	14L. 1s. Printed Acorn	6/3
	The best 6d. is the Unbreakable	
	A1 Roller Menthol.	
	3/6 doz. earded.	
	There is no nonsense about this.	
	You can throw it up to the ceiling	
	and it will not break in falling.	

"JUSTICE" figure given away with £2 order.
This helps to make your window attractive.

A 1 SOOTHERS.

The Best 3d. in the World.

A 1 SLIDE RING.

Very strong. Fitted with Seamless Teat.
2/- dozen.

1d., 3 dozen on card, with cord for	gross.	6d., Bone Ring and Mount	doz.
neck	7/6	6d., Whistle	3/9
1d., 3 dozen on card, Bone Ring ...	8/6	6d., Fascinators	3/9
2d., Boxwood Mount, and cord ...	14/-	6d., Baby Companions	3/9
2d., Bone Mount, and Silk	15/-		
3d., All Rubber	17/-		
3d., Bone Ring and Mount	1/10		

6d., Bone Ring and Mount	doz.
6d., Whistle	3/9
6d., Fascinators	3/9
6d., Baby Companions	3/9

Be on the look out for a novelty shortly.

FLAVOURING ESSENCES,

1d. Tubes, 3 doz. on a card	7/6 gross
3d. Bottles, 1 doz. on new show-stand, best line in the market	1/10 doz.

ETIENNE'S PERFUMES.

In Bulk, Triple. 9/-	doz.
1b. in Original Tins. 6d., Cut Fancy	4/-
10/- per lb. in 1/2, 1/3, 6d., Sprinkler	3/9
or 1 lb. bottles. 6d., Capped	3/6
6d., Plain Cut	4/-
	1s., Heavy Essence, cut stopper

VERY HIGHLY CONCENTRATED, 1 oz., 11/-; 2 oz., 18/-; 4 oz., 34/-; 6d. Lavender, 3/6 dozen.
1s. sizes and upwards can be had with buyer's name on free by ordering 3 dozen.

CARDED SCENTS.

1d. Tubes ... gross	7/6	3d. Ovals and Sprinklers, doz. 2/-	3d. Lavender and Musk, doz. 2/-
1d. Bottles	8/-	3d. Capped	1/10
2d. "	14/-	1d. Lavender and Musk, gross 8/-	3d. " " ... doz. 1/10

"HAWARDEN" & "PRIMROSE" BOUQUETS.

Charming Lines, labelled in 3 colours, bearing Gladstone's and Beaconsfield's Portraits, 3d., 1 doz. on card, 2/- doz.; 6d., 3/9 doz.; 1/-, 8/- doz.

PLEASE carefully look at the following, as they are lines you should stock!!!

GOLD PAINT.

WATERPROOF.

1d., 3 doz. on card, 7/- gross.
3d., 1 " " 1/10 doz.

ROSEMARY AND BORAX

HAIR-WASH POWDER

1d., wrapped in tinfoil enclosed in envelopes.
3 doz. on card, 7/- gross.

DIGESTIVE CANDY.

In Tins to retail at 2d.
1 doz. on card, 1/3 doz.

CORN SOLVENT.

In Bottles with Brush attached to box-top cork.
1 doz on card, 2/6 doz.

CEMENT.

1d., 3 doz. on card, 7/- gross.
3d., 1 " " 1/10 doz.

SACHETS.

3d., very pretty, in hanging glass box, 2/- doz
6d., half-doz. in box, 4/- doz.
These are beautifully made and scented.

BRILLANTINE

Well got up and equal to anything in the market.
1 oz., capped, 2/9 doz.; with Sprinkler, 3/- doz.
1 oz., capped, 3/9 doz.; with Sprinkler, 4/3 doz.

GLYCERINE, CUCUMBER

AND ALMONDS. 2d.

1 doz. on card, 1/3 doz.
In bulk, 1/- lb.; 5 lbs. 10d. lb. Bottles free.

CARBOLIC TOOTH POWDER.

In Tins, very attractively labelled.
3/4 oz. 1 oz. 1 1/2 oz. 3 oz.
2/2 3/- 3/6 5/- per doz.
6 doz. 1/11 2/9 3/3 4/9 "
12 " 1/9 2/6 3/- 4/6 "
Buyer's own name on free for gross lots.

BOUQUET LOZENGES.

Violet, Musk, Heliotrope, Rose, and Lavender. Heart and Diamond shapes.
2/3 per lb. in bulk. In chromo labelled
gold tins 2/3 doz., 2 doz. in box. In
glass-topped tins 2/9 doz.

FULLER'S EARTH AND VIOLET POWDER.

In handsome gold-blocked leatherette boxes, quite new	3/9 doz.
A beautiful line.	
1d. barrels, F.E., 6/-; V.P., 6/6 gross.	

SHIRLEY BROTHERS, 105 Whitecross Street, LONDON, E.C.

SALE! SALE! SALE!

We are removing to more convenient premises on March 25, and, to reduce our Stock as much as possible prior to removal, we are now offering same at lower figures all round, and in the case of Fancy Goods, Sundries, &c., at a very large discount for cash. It will be worth your while to call or write.

G. VOGT & CO., Wholesale and Export Druggists and Perfumers,
28 WILSON STREET, LONDON, E.C.

Telegrams—"ALSACE LONDON."

PRICE LISTS FREE.

STOCK KEPT IN LONDON

SOZIO & ANDRIOLI

ESTABLISHED A.D. 1757.]

GRASSE (Alpes Maritimes), FRANCE.

Neroly, Lavender, Geranium, Orris, Patchouly, Thyme, Rosemary, Spike, Santal, &c.

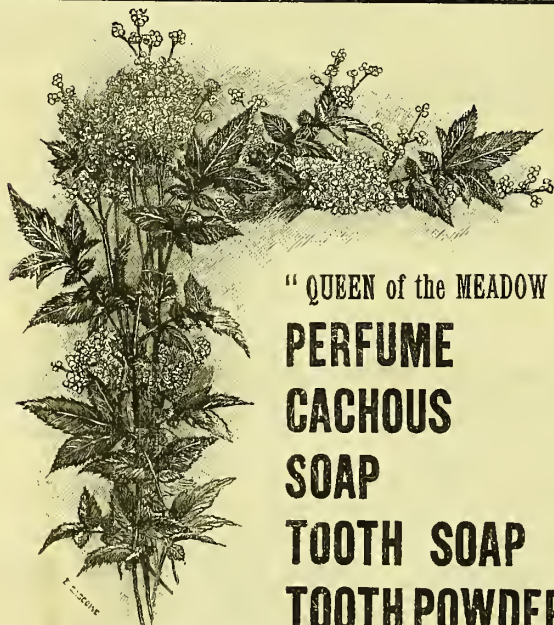
CONCENTRATED PERFUMES.

CONCRETE ESSENTIAL OILS.

FLOWER POMADES at the highest possible Saturation. ROSE & ORANGE FLOWER WATER, Sweet Almond Oil.

STOCK KEPT IN LONDON

London Agent—MR. FREDK. BOEHM, 4 CULLUM ST., E.C.



"QUEEN of the MEADOW"

**PERFUME
CACHOUS
SOAP
TOOTH SOAP
TOOTH POWDER**

Are the most Saleable Preparations of their kind in the Market.

They do not bear maker's name, and are largely sold by Chemists as their own Proprietaries.

If you have not seen them, write for samples and prices. Their unique quality and finish make trade, for, after all, it is inherent merit which leads to continued prosperity in the business pharmaceutical.

WILLIAM BLEASDALE & CO., YORK.

60

NAME STAMPED GRATIS

BEST & SAFEST DENTIFRICE On Orders of **3 doz.**

SOLD BY ALL CHEMISTS
AND PERFUMERS, IN
ELEGANT CRYSTAL
TOILET CASKET

PRICE 2/6.

ALSO IN PATENT
METALLIC BOX

PRICE 1/-



Through any
Wholesale
House,
or direct to

OSCAR SUTTON & CO., Preston, Lancs.

EWEN'S

Pure Lard ... 1/ lb.
Benzd. Lard ... 1 1/2 "
Beef Marrow ... 1/4 "
Beef Suet ... 1/ "
Mutton Suet ... 9 "
Neatsfoot Oil ... 1/6 "
Trotter Oil ... 1/6 "
Zinc Ointment 1/6 "

EWEN'S

Violet Powder /10 lb.
Cosmetiques ... 3/ doz.
Tooth Powder 3/6 "
Camphor Rolls 3/3 "
Pomades ... 3/6 "
Brilliantine ... 7/ "
Soft Soap, B.P. /8 lb.
Grain Musk ... 110/ oz.

TOILET AND MEDICATED SOAPS OF ALL KINDS.

J. EWEN & SONS, 5 HATFIELD ST., LONDON, S.E.

JOSEPH WATSON & SONS, MANUFACTURERS OF GLYCERINE

DOUBLE DISTILLED CHEMICALLY PURE, 1260 Sp.G.,

ALSO FOR
NITRO-GLYCERINE AND OTHER MANUFACTURING PURPOSES

PACKED IN 10 AND 5 CWT. IRON DRUMS, TO BE RETURNED, AND IN 56 LBS. TINS FREE

WHITEHALL SOAP WORKS, LEEDS.

WRITE
FOR
TERMS
OF
AGENCY.

ried to its worth. It is giving satisfaction to both the trade and the public wherever it has been introduced. We have special facilities for assisting our agents local sales, and we shall be pleased to supply full particulars upon hearing from you.

Address: DOROTHY DENTIFRICE COMPANY, 11 & 13 St. Bride Street, London, E.C.

SUGAR OF MILK

(SYSTEM LANGEN). 1

Highly recommended by authorities. The only make of perfect purity in all respects.

AGENTS—

BURROUGHS BROS.

66 Basinghall St., London, E.C.



For CLEANING PLATE?

**BRADLEY & BOURDAS'S
ALBATUM or WHITE ROUGE.**

For CLEANING GOLD, SILVER, and PLATED GOODS.

A trial is only needed to prove its superiority over other Plate Powders in use. Chemists will find it to their advantage to recommend this Powder, as when it is once tried it is always continued to be used.

Sold in Boxes at 1s. and 2s.; Tins, 6s.

6 PONT ST., BELGRAVE SQ., & 48 BELGRAVE RD., LONDON, S.W.

BORAX & CAMPHOR SOAP.

(DODD'S PATENT.)

DODD BROS. desire to draw the attention of the trade to their Borax and Camphor Soap, the demand for which is being rapidly created, and it finds a ready sale wherever introduced. It is specially adapted for washing the Hair, and is invaluable for the Skin, Bath, and Toilet. It is packed in handsome carton cases, and retails at 6d. One-dozen box makes an attractive show.

Artistic Showcards and Handbills on application to any Wholesale House, or to DODD BROS., Stamford Hill, London, N.

SOLD BY THE FOLLOWING WHOLESALE AGENTS:—

London—Barclay & Sons, W. Edwards & Son, R. Hovenden & Sons, Lynch & Co., S. Maw, Son & Thompson, May, Roberts & Co., F. Newbery & Sons, J. Sanger & Sons, Shirley Bros., W. Sutton & Co.
Belfast—Clark & Co., McMullan & Co.
Birmingham—Southall Bros. & Barclay

Bristol—Ferris & Co., A. & J. Warren.
Cork—Kiloh & Co. (Limited).
Dublin—Hayes & Co., McMaster, Hodgson & Co.
Edinburgh—Duncan, Flockhart & Co., Rames, Clark & Co.
Glasgow—Apothecaries' Co.
Leeds—Goodall, Backhouse & Co.

Liverpool—Evans, Sons & Co., John Thompson.
Manchester—Oldfield, Pattinson & Co., J. Woolley, Sons & Co.
Norwich—Smith & Sons.
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York—Bleasdale & Co., Folkard & Co., Rames & Co.

THE SURGEONS' LINT,

V.B. QUALITY.

The superior quality of Newsome's Absorbent Surgeons' Lint is universally admitted. The V.B. quality is quite pure and of great superficial area and exquisite softness. The C., D., E., and F. qualities are equally pure and absorbent; E. is stronger in fabric.

NEWSOME' BLEACHED ROLLED BANDAGES, 3 in., 2½ in., 2 in. Also SURGICAL ABSORBENT OPEN BANDAGES.

Specially Bleached & Grey Carded Cotton Wools, Absorbent & Bleached & Grey Waddings; also Sheet Waddings, Tow, &c.

THE TRADE SUPPLIED THROUGH THE LONDON AND PROVINCIAL WHOLESALE HOUSES, OR FROM

O. NEWSOME, MANUFACTURER, BEEHIVE MILLS, ANCOATS, **MANCHESTER.**

London Agents—R. PRATT & CO., 1 Wood Street, E.C.

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ESCHMANN BROS. & WALSH,

Inventors and Manufacturers of the

SOFT SILK FLEXIBLE CATHETER. GUARANTEED WITH WOVEN EYES

To be had of all Surgical
Instrument Makers
and Wholesale Houses.



To be had of all Surgical
Instrument Makers
and Wholesale Houses.

PRIZE MEDAL,
International
Health Exhibition,
1884.

THE NEW PERMANENT

ENGRAVED WINDOW TABLETS

AWARD OF MERIT
International
Sanitary Exhibition,
1881.

IN RUBY, BLUE, AMBER, AND OPAL GLASS.

Send particulars of size, subject matter, and colour, when price for one Tablet and upwards will be sent.

For Proprietary Articles, 100 8x6 Ruby Tablets, £3 15s. 0d.

J. R. CORSAN, THE LONDON SAND-BLAST WORKS, 58a GRAY'S INN ROAD, W.C.
TO PREVENT FRAUD, DEMAND BUSINESS CARD FROM TRAVELLERS.



THE INHALANT

"SPIRONE"

TRADE MARK.

FOR THE TREATMENT AND CURE OF ALL

DISEASES OF THE LUNGS, WINDPIPE, NOSE & THROAT.

CLAIMS TO BE A

Specific for all Congestive and Inflammatory Conditions of the Respiratory Apparatus,
And will be found efficacious in

INFLUENZA, COUGHS AND COLDS, ASTHMA, BRONCHITIS,

Inflammation and Congestion of the Lungs, Pneumonia, Pleurisy, Whooping Cough, Croup, Diphtheria, Pharyngitis, Laryngitis, Catarrh, Sore Throat, Quinsy, Enlarged Tonsils, Hoarseness, Loss of Voice, Colds in the Head, Hay Fever, and all other Complaints of the Respiratory Organs.

None Genuine except such as bear the above Trade Mark "SPIRONE" and the Signature of the Inventor upon the Bottles, on the Label over the Cork, and on the Wrapper.

Retail Price, 4s. 6d. and 11s. per Bottle. Set of Apparatus for Administration, 15s.

PAMPHLETS AND SHOWCARDS FREE ON APPLICATION.

THE SPIRONE COMPANY, LIM., 285 REGENT STREET, **LONDON W.,**

LUNGILI.

A New Drug for Dysentery and Diarrhoea.

This Drug was discovered a few years ago by Mr. A. H. G. Pigg, when exploring in Eastern Africa. It was originally obtained from a native Wise Man or Doctor, and was the cause of curing many obstinate cases of Dysentery. It consists of the powdered bark of a tree supposed to be hitherto unknown to science.

Testimonial from Mr. C. A. MOREING, M.Inst.C.E.,

BROAD STREET HOUSE, LONDON, E.C.

GENTLEMEN,—I have much pleasure in telling you that I have taken the "Lungili" you so kindly sent me, and it appears to have completely cured me. I have been suffering four years from Dysentery, the result of malarial fever caught in Africa, and no doctors were able to do me any permanent good by the ordinary remedies.

Yours truly,

C. ALGERNON MOREING.

THE "LUNGILI" COMPANY,

35 LUDGATE HILL, BIRMINGHAM;

or of Wholesale Druggists, EVANS, SONS & CO., Liverpool, and EVANS, LESCHER & WEBB, London.

10. PILLS!! SUGAR-COATED!! 10. PILLS!!



Medicine made pleasant for all. The Cheapest and Best Family Medicine. The most Saleable Article in the Market. Composed of the purest Drugs. Will keep good in all climates any length of time.

The following varieties are put up in Glass Tubes, in Cards of 3 doz., or in gross boxes, at one penny per tube:—

Antibilious	Hamilton
Asafoetida	Liver
Bland	Podophyllin
Castor Oil	Quinine
Colocynthis	Rhubarb
Dandelion	Tonic
Female	Vegetable, &c.

Other varieties can be had if required. Terms—7s. per Gross, cash; 8 Gros. assorted, in handsome mahogany glass case for 42s. Sent free by parcel post on receipt of P. O. Order or Postage Stamps. Agents and Purchasers of large quantities get a liberal discount. Send for Sample.

Aromatic Cachous, Chlorate of Potash Pellets and other varieties put up as above at same price.

AGENTS WANTED.—APPLY AT THE

Anderston Apothecaries' Hall, Washington St., GLASGOW. Telegraphic Address—"Liliputian Glasgow."

J. ROBBINS & CO
OXFORD ST. 147

METHYLENE

Obtained by the action of Metallic Zinc on Chloroform at a low heat.

Discovered to be a general Anæsthetic by Dr. RICHARDSON in 1867.

1-lb. Stopped Bottle, 1 s.; ½-lb. do. 6d.; 4-oz. do. 3s. 6d.; 2-oz. do. 2s.

COMPOUND ANÆSTHETIC ETHER,

For producing Local Anæsthesia.

In 4-oz., 10-oz., and 20-oz. Stopped Bottles, 2s., 4s., and 7s.

OZONIC ETHER,

In 1-oz., 4-oz., 8-oz., and 16-oz. Stopped Bottles, 2s., 3s. 6d., 7s., and 12s.

PEROXIDE OF HYDROGEN,

First introduced as a Medicine by Dr. RICHARDSON.

ETHYLATE OF SODIUM

(Dr. RICHARDSON'S Formula, for removing Nævi, &c. In 1-oz. and 1-oz. Bottles, with elongated stoppers for applying the Caustic, 2s. 6d. & 4s.)

STYPTIC COLLOID.

For promoting the Healing of Wounds by the first intention.

In 2-oz. and 4-oz. Bottles, with Brush, 2s. 6d. and 4s. 6d.; 16-oz. do. 12s.

CHARCOAL CAPSULES,

containing Pure Vegetable Ivory Charcoal.

In Boxes, 2s. 6d. each.

PARIS EXHIBITION, 1889.

PRIZE MEDAL AWARDED TO



"SALVO PETROLIA"

Absolutely Genuine Paraffinum Molle of the very Purest Form, and we claim that it is superior to Vaseline.

Manufactured by the Proprietors in Five distinct qualities—
WHITE, LEMON, YELLOW, GOLDEN, AND VETERINARY.
PACKED IN TINS, 1, 5, 10, 14, 24, 56, and 112 lbs. Also in 3-oz. Cans.

"Edible Salvo Petrolia"

"OLEUM DEELINÆ"

(REGISTERED).

Universally adopted by the Medical Profession for
OPHTHALMIA, SCURVY, RINGWORM, ECZEMA, AND ALL SKIN-DISEASES.

For External and Internal Irritation of every kind.

PACKED IN CASES—

One Doz. 1s. 6d. Bottles; One Doz. 2s. 6d. Bottles.
Pint Bottles, 4s. 6d. each, for Hospitals and Dispensing Chemists.

TESTIMONIALS MAY BE HAD UPON APPLICATION.

For Public Speakers, Actors, and Singers.
1s. 6d. per Tube.

The above are Manufactured Solely by the Proprietors,

THE DEE OIL COMPY, LIMITED.

Works—SALTNEY, CHESTER.

OFFICES—

LONDON—38 LEADENHALL STREET, E.C.

Liverpool, Dublin, Manchester, Glasgow, Hull, Cardiff, Bristol, Belfast, Barrow-in-Furness, Nottingham, Paris, Hamburg, &c.

THE "MORSTADT" Cachets
 Are the most digestible, flexible, and elegant Cachets in the market, and are fast replacing all competitors. The Cachets are made to hold from 3 to 18½ grains Quinine or Salicylic Acid.
 "MORSTADT" CACHET CLOSING APPARATUS, to easily, cleanly and speedily close 12 Cachets at one operation, from 12s. to 30s.
 SMALL APPARATUS, to fill and close 1 Cachet at a time, 2s. 6d. each.
THOMAS CHRISTY & CO., 25 Lime St., London, E.C.

ESTABLISHED 1835.
DENTISTRY
Best Mechanical work from impressions or models. Care and promptitude may be relied on. Moderate charges, inclusive of materials.
FENTIMAN & CO., DENTISTS, 2 Upper East Smithfield, adjoining Royal Mint, London.
The above is the only Address.

GEORGE HAYNES & CO.
 Hampstead Cotton Mills, Stockport,
 MANUFACTURERS OF
BLEACHED & ABSORBENT COTTON WOOLS
 GREY WOOL, COLOURED WOOLS, & JEWELLERS' SHEETS
 THREE GOLD MEDALS, TWO SILVER MEDALS, AND DIPLOMA OF HONOUR
 The Highest Awards given to any Cotton Wool Manufacturers.
 Telegraphic Address—"HAYNES STOCKPORT."


E. H. THIELLAY S (Registered 1867)
EAU F. JOUVENE, GOLDEN.
 Producing Flaxen Golden Hair.
 Gold Medal, PARIS, 1867. PHILADELPHIA, 1876.
 This is a very superior article. In Bottles at 3/6, 6/-, & 10/-
 All Wholesale Houses, or direct from
E. H. THIELLAY,
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MUMFORD'S
CONCENTRATED CORDIAL ESSENCE
OF JAMAICA GINGER.
 For 50 years has not been equalled for its prompt action in relieving pain from Gout, Indigestion, Nervousness, Hysteria, Flatulency, &c. In bottles, 2s. 9d., 4s. 6d., obtainable through Sanger, Barclay, Edwards, &c.; or from the
 SOLE PROPRIETOR,
5 BATHURST STREET, HYDE PARK, LONDON, ENGLAND.

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 No. 680, 12s. per dozen, guaranteed.
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Hydrobromates
 Supplied in Original Bottles ready for Patient's use (stamped), to retail at 4/6 each; also in 1-lb. Bottles for Dispensing, by the Sole Manufacturers:—
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"SILVERY WHITE GUTTA PERCHA ENAMEL"
 TRADE MARK
TOOTH STOPPING

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 SOLE PROPRIETOR AND MANUFACTURER.
 Registered No. 3,456.
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PRECIPITATED CHALK, WHITEST AND PUREST.
 CHEAPEST SELLERS IN THE MARKET.
ALSO CHEMICALS, DRUGS, AND OILS.
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PUREST CHLOROFORM
 Guaranteed free from all injurious impurities. The Purest in the World.
 SEND FOR ANALYSIS AND TESTIMONIALS.
SALAMON & CO., LD., CHEMICAL MANUFACTURERS,
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Contractors to Her Majesty's British and Indian Governments.
FLETCHER'S PINO-PHENOL PURIFIER.
 Dr. Wm. Collingridge, M.A., M.D., LL.M., the Eminent Medical Officer of Health for the Port of London, writes:—"I have examined your Pino-Phenol Purifier and have tested it practically. It is an excellent preparation diluted to about 1 in 100, it is a valuable fluid for purifying and sweetening Drains, Closets, Cesspools, &c., and has a marked effect upon decomposing animal and vegetable substances. It is a powerful antiseptic, and has, moreover, a pleasant odour."
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 Wholesale and Export Druggists before buying elsewhere should apply to
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 Established 1807.
 WILL CURE.
 CHEAPEST.
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FREE Printing of Chemists' own Bills.
 Send Hand-bill or Labels.
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The only reliable cure for corns known.

Trade 8/6 per dozen, cash, Carriage paid.

BLAUD'S PILLS (Best Quality, Soluble Coating).

10-gross Tins, carriage paid, for 4/6. Cash with order.

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BRIGHTENS FURNITURE WITH LITTLE LABOUR.

In Tins—1d., 7/- gross. Stone Bottles—1d., 8/- gross; 3d., 2/- dozen; 6d., 4/- dozen; 1s., 7/- dozen. It is sure to please and increase your trade.

Every Chemist should send for Sample order, 6 dozen assorted as required, Carriage Paid, P.O.O. or Cheque, payable to

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LEMON OIL,

Absolutely pure. Nothing finer imported.

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These Coffees have been before the Public for nearly 50 years, and are the very best of their kind.

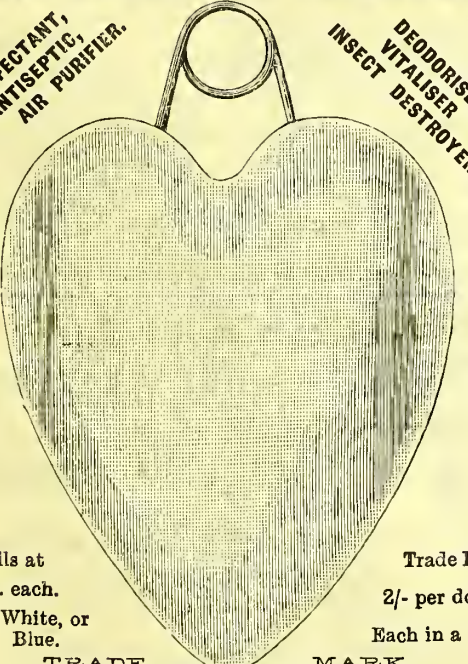
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DISINFECTANT, ANTISEPTIC, AIR PURIFIER.

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NO CHARGE FOR SHOW CASES.

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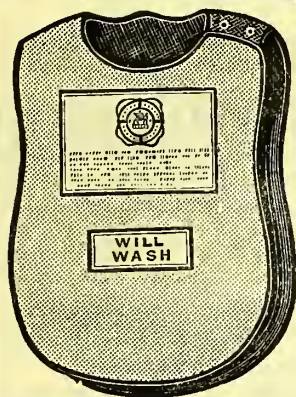
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Every attention given to any coloured and special-shaped Bottles.

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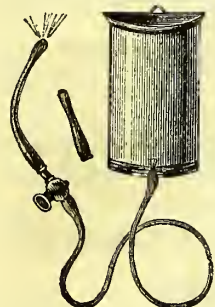
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“HEALTH” CHEST PROTECTORS

ARE WARMER, SOFTER, MORE ELASTIC, AND BETTER FITTING THAN FELT, BEING WOVEN FROM BEST LAMB'S WOOL ONLY.

HYDROSTATIC DOUCHES AND ENEMAS.

THE CHEAPEST AND BEST IN THE MARKET.



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| No. 571A. ENEMA DOUCHE, for hanging or standing up, consisting of two-pint Bronzed Canister, fitted with 6 ft. best Black Tubing, Vulcanite Stop-cock, Rectum and Vaginal Tubes to plug on, in a card box (as Fig. 571) .. | 4/3 |
| No. 571. Ditto, the same, but with three-pint Canister | 4/6 |
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| No. 576. Ditto, with three-pint Canister instead of two-pint, ... | 7/ |
| No. 571B. Ditto, three-pint Bronzed Canister, fitted with 6 ft. Grey Tubing, Vulcanite Stop-cock, and Glass Vagina Pipe (A Cheap Line) | 2/9 |
| No. 578. Ditto, Family Syringe, all Rubber, with six Vulcanite Jets | 9/ |
| No. 570. Ditto, for Travelling, to close in hinged Bronze Case | 5 6 |

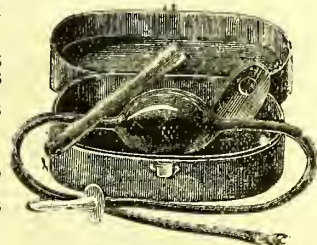
ENEMAS.

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| No. 558A. Enema, seamless, in one continuous piece, without metal joints, black, red, or green, in oval leather and cloth boxes, complete as illustration | 33/ |
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All other Current Lines in Stock at very Low Prices. Subject to Discounts, which may be had on application. Special Terms for Shippers and large quantities. Price List Post Free upon Application to

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F. SCHUTZE & CO., Manufacturers, 36a Aldersgate St., London, E.C. {Telegraphic Address: } {Odorators London. }



No. 558A.

By Royal

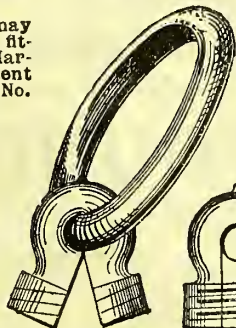


Letters Patent.

THE TEETHING PADS TO SELL. THE “LILY” BABY COMFORTER.

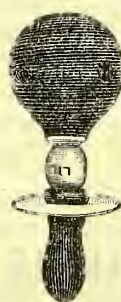
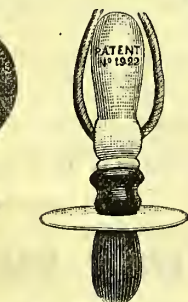
The teats are seamless, and always retain their proper shape. THE CHILD CANNOT POSSIBLY IMBIBE AIR.

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For inserting Bone, India-rubber, and other Rings into Teething Pads, Baby Comforters, or other articles without cutting the ring, which is guaranteed not to break.

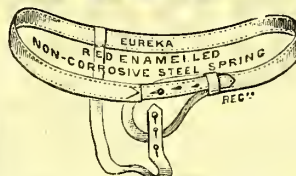
8d., 4d., 6d., 9d., & 1s. Retail.



Patentees and Manufacturers, **E. MARRIOTT & CO.,** HASTINGS

FOR OTHER PATTERNS SEE 1893 DIARY PAGE 295.

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BEST LONDON MAKE.

From all Wholesale Houses or Patentee, but ask for the “EUREKA.”

PRICES—

Single Inguinal, quality 1, 11/6; 2, 12/6; 3, 15/6 per doz.
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Prices of Scrotal, Femoral, Moc Main, and on the S. & O. Truss Principle forwarded by return of Post.

Furnaces always alight. Every spring guaranteed.

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| “The Leicester” | RIBBON PLASTERS | OF FLESH-COLOUR CAMBRIC. All widths. In Tins. |
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| “The Leicester” | HOSPITAL STRAPPING | On Holland or pure Calico |
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| “The Leicester” | MUSTARD LEAVES | Thoroughly reliable. |
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| “The Leicester” | RIBBON PLASTERS | IN RUBBER COMBINATION, on handsome spoils. All widths. |

Francis' Capsicum Leaves, Francis' Bronchial Protector, &c.

May be obtained from any Wholesale House.

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The following **Special Recipes** have a fortune in them. For details see Winter Issue of **THE CHEMIST AND DRUGGIST**, page 241.

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Free from Opium or any Narcotic; costs 7d. per lb.; elegant appearance; pleasant taste; keeps indefinitely.

Circassian Hair Stimulant and Restorer.

An ideal preparation; warranted equal to any in market; pays well, and gives universal satisfaction. Original cost, three guineas.

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Perfection at last! One solution; jet black, irremovable; no better Ink sold; costs 1s. per lb.; Recipes 5s. each; Samples of either 6d. each, post free.

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Above Six post free for 5s.; full directions for making

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Six Odours, retail, 2d. each; Best in Market; *sell themselves*.

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Retails 2d. in Japanese Basket; prevents contagion; kills Moths and Fleas instantly. Trade price of both, 1s. per doz.; sample 2 doz., post free, for 2s. May be had of **BARCLAYS, SANGER, EVANS, LESCHER & WEBB, &c.**

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Which is of the quality adopted as "Standard" by the British and German Governments after bacteriological tests. Unscrupulous statements that other disinfectants are superior to genuine Carbolic Acid should be treated with the distrust they deserve.

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FINEST BUTTER COLOR

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ACIDS OF ALL KINDS.

GRANULATED EFFERVESCENT PREPARATIONS.

BUYERS SHOULD SEND FOR QUOTATIONS

CONTAINS NO POISON.

STORCROFT'S CURE.

In the worst cases of **DIPHTHERIA, QUINSEY**, and all **DISEASES** of the **THROAT** and **CHEST**, its effect is simply marvellous.

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OXY-IODINE COMPOUNDS.

AS SUGGESTED BY DR. HUGH WOODS.



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Red Oxyiodide of Bismuth.—Very superior to Iodoform. Odourless and unirritating. Powerfully antiseptic. Cures wounds, sores, eczema, intertrigo, chapped hands, sweating feet, &c. Price 1/6 per oz.; ointment (1 in 10), 3/6 per lb.

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A HANDSOME COUNTER MAHOGANY SHOW CASE

Given to any Chemist buying 1 cwt. of above Lozenges. Price 1/- per lb. net.

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"TOP NOTE PRODUCERS."

The immensely increasing demand for these Lozenges, and their wonderful popularity, is entirely due to their intrinsic merits, not only as producers of a fine clear voice, but as an effectual remedy for all Chest Affection Sore Throats, arising from cold, seem to disappear as if by magic; Tickling in the Throat or Hoarseness is removed by allowing a few Lozenges to gradually dissolve in the mouth; indeed, Debility and Weakness of the Vocal Organs are unknown to those who regularly use these valuable Lozenges. Sold in 1/1½ and 2/9 Boxes.

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The most delightful and delicately perfumed Lozenge ever produced; have an immense sale.

With 4 lbs. of these Lozenges we give one of Mellin's Patent White-glass Silver Top Screw-stoppered Bottles.

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DIGESTIVE DINNER TABLETS,

Composed of Bismuth, Cardamom, Soda, Rhubarb, Ginger, &c.

CHOCOLATE WORM CAKES,

Very palatable and unusually attractive.

Packed in Tins, each containing 3 doz., 6 doz., or 12 doz. Cakes. Retail at One Penny each.

Sugar Worm Cakes,

Contain Calomel, Jalap, and Santonine (flavoured with Raspberry), are palatable and very effective.

As they will keep in any climate, a steadily increasing demand is made for them for EXPORT.

Put up in 3-doz., 6-doz., and 1-gross Tins.

[1]

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1d. packets 6/- gross.



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GROWN FROM CAREFULLY
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Best quality only at lowest prices.



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All Packets handsomely designed and
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Make an attractive show and find a
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CONTAINS 14 PACKETS CHOICE VARIETIES.
RETAIL AT 1S.

Put up in beautifully decorated outer.

Price, 7/- per dozen.



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The best value
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HOMŒOPATHIC MEDICINES.

6 POINTS TO BE CONSIDERED.

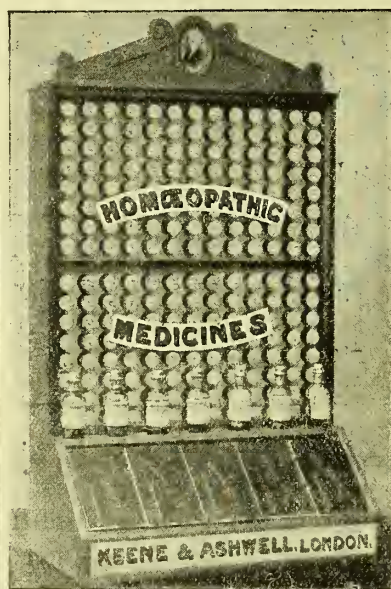
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£5 "HAHNEMANN" CASE.

Contents—30 doz. 1/- Medicines = £5 5s.
No charge for Case.



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